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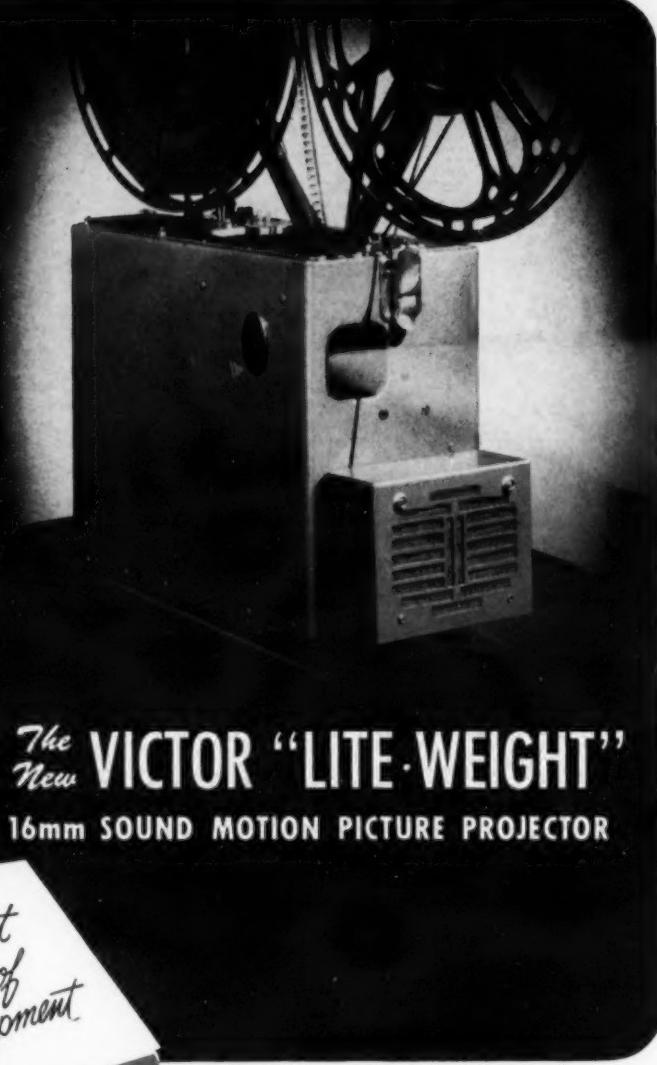
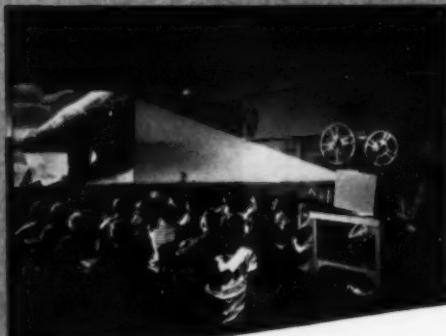
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VOLUME 115, NUMBER 6

DECEMBER, 1947

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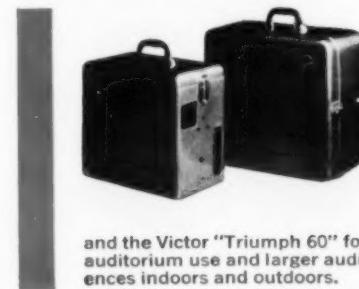


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THE AMERICAN School Board Journal

A Periodical of School Administration

Published on the first day of the month by

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The contents of this issue are listed in the "Education Index."



Leadership in School Building Maintenance and Operation

Providing the educational facilities in the shape of buildings and related equipment, which are safe, sanitary, and fully adequate for the educational work to be done in them, are among the chief functions of school boards.

Maintenance and operation of the school plant, however, is among the major responsibilities of the superintendent. School buildings are important business units of instructional equipment and must function as such in the educational program.

Of course the administrator is not expected to know every detail of the work involved in the maintenance and operation of the school plant. His interest and responsibility is in the methods, equipment, and materials necessary to secure the desired results. He must know how to issue the directives and place responsibility for the work to be done. To do this he should know a good deal about many of the features of school building maintenance and operation which contribute directly to the educative process and which make it possible to function.

As one of the important problems of school administration, the JOURNAL gives considerable attention to methods, equipment, and materials for school building operation and maintenance. The advertising pages serve as a convenient means in obtaining product and service information. Refer to the advertising in this issue and then make use of the inquiry form on page 71.

JOHN J. KRILL

Title Page and Index

A Title Page and Index to Volume
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THE AMERICAN School Board Journal

Volume 115, No. 6

DECEMBER, 1947

Subscription, \$3.00 the Year

A Teacher Looks at Democratic Administration

Margaret L. Fitzsimmons¹

Will the atomic bomb destroy man or will man rise above its threat of annihilation? Man has power to save himself. Man has power to destroy himself, his world, his opportunity. If man will think in terms of world reality and will convert realistic thought into action the future is bright and challenging. If he won't, the future is dark and chaotic. The moment of decision is now!

Dare we take this issue lightly? Not if we value the sacrifices made by men and women to stem the tide of tyranny. Not if we believe democracy has worth. Ours is an opportunity to build a new world, one in which men will not atomize men, one in which democracy will exist for us and for all who desire it.

Ours is an era in which democracy will grow and spread or in which democracy will wither and ultimately die. The tomorrow of democracy rests with us. Vitalized democracy cannot perish. Democracy stored in human souls, flowing in the human blood stream, will live and propagate!

If man is to save himself from the ravages of the atomic bomb, he must convert idealistic philosophy into action, now! Education must be socialized and democratized. Youth must learn to understand his world and the people in it. He must learn to identify himself with others in order to see the world as they know it. Conquest of physical nature will avail us little if we cannot harmonize human relations, by realizing the spiritual nature and destiny of man. The present difficulty is that each individual, every little group in our world, is generally ignorant of how other persons, other groups, live. This ignorance leads to isolation, suspicion, misunderstanding, and to hatred. If the end product is to be complete human welfare and a democratic citizen, then the method of making such must be democratic. Democratic unity of personality is needed. Autocratic means will produce autocrats. Democratic means are more likely to produce democrats.

¹St. Louis 12, Mo.

What is to be done to create a school environment which will mold men and women with democratic ideals as a part of their total outlook and purpose in life? Let us look at school organization and administration. Are they democratic? Some say that they aren't. Others say they are. Then let us look at school living, that is, at the human relations existing within the school. Are these democratic? If not, how can they be made democratic?

Should Teachers Administer Schools?

Some believe our schools are autocratic. Autocratic in organization. Autocratic in practice. In fact this group contends that wars are started in classrooms by the dictatorial attitude and procedure of teachers. But, by way of excuse, they add that teachers can't treat pupils in a democratic way unless they, themselves, are so treated. Surely, we all oppose the autocratic order in any shape or form and agree that it should be eradicated.

Others advocate ultrademocratic organization and practice. Even carrying it to the extreme of wanting the students to take over. We can easily see the dangers of such an ultrademocratic regime, if democratic it be.

Many are convinced that the teachers, co-operatively, as a group, should operate the schools. This idea is vigorously sponsored even though it would upset the democratic organization of our schools as instituted by the people of the United States; even though a few timid teachers

have enough courage to admit that they have enough to do without gaining this added responsibility; even though others face the fact that they aren't interested in administration. They want to teach and they want time and energy to teach. One faction within this group contends that the approach to democratic administration should be made from the point of view of equality in distribution of administrative authority. Another faction approaches the question from the viewpoint that added responsibility of an administrative nature will enrich the life of the teacher.

Ours Is a Representative Democracy

Here let us pause to look at school organization as set up in our country because much of the above argument for democratic group administration of the schools is not consistent with the theory and practice of representative government. In the state constitutions the people have said that the basis of the school structure rests with the state. Much of this authority is delegated by the state to school districts, counties, cities and towns. Within each of these areas, taxpayers are empowered to elect a board of education responsible in law to them and to the state. Of necessity, the board of education delegates a considerable portion of its administrative tasks to a superintendent, a capable person whose primary duty is to administer the educational policies of the board of education. To promote and provide effective educational opportunities for youth, administrative assistants and teachers are employed. Responsibility follows the course of legal liability; that is, from the teaching staff to the administrative corps, to the board of education, to the state, and thence to the citizenry. Since the law of the people has thus fixed school responsibility, the advocates of democratic administration, with the teachers in control, are in an untenable position. Any such delegated responsibility would collapse if challenged by either the board of education or by the voters. Were this not the case the result would be viciously undemo-



catic. It would constitute an extraordinary instance of taxation without representation and irresponsible bureaucracy. Power would be concentrated at two ends rather than at one. It would rest in the ballot of the citizen and in the hand of the teacher. Boards of education and administrators would be accountable to both. How impossible this would be!

Hence many Americans wish the administrative force to retain, in fact and in practice, the obligation given it by the people of the states of the United States. To achieve this end, I propose keeping our present form of school organization because it is democratic, and I suggest to those who feel that teachers should have greater administrative responsibility so that they will feel they are more completely part of the whole educational project, that they encourage teachers, as individuals, to become more active as citizens. Let them vote, let them be elected members of the local board of education, let them weave their way into the setup, as is, from the position of a citizen and not from the position of a teacher.

Democracy in Present Setup

Within the confines of the present administrative machinery there is ample opportunity for democratic living resulting from democratic thought and action. There is a definite trend toward greater co-operation among workers, with less authoritarianism prevalent and greater democratization predicted for the future. Policies are no longer dictated by one man or by a small group of men; even though one man, or a small group of men, legally carries administrative responsibility delegated by the people, policies are produced by everyone concerned working together as human beings for a common good.

Progress can be made in democratic living if principals and teachers will remember they are members of the same profession; co-workers, in different but related capacities, in a common enterprise; that they share joint responsibility for the same individual pupils. When teachers, principals, and supervisors work together, each assuming the obligations of his assigned duties, each co-operating with the others, all become aware of each other's problems. A co-operative approach to such matters as the formulation of general guideposts and specific objectives, the establishment of immediate instructional aims, and the revision of the curriculum is entirely possible without, and pretense of, democratic administration of the group type.

It seems to me that only one thing is being said by reformers, by pseudo reformers, by malcontents, by parents, by boys and girls, by hard-working teachers and by conscientious administrators. All are saying, "Please treat me as a human being with sense enough to do my job in co-operation with others. I'm not an

imbecile. What I don't know I can learn. Stop pushing me around." In other words, what is wanted is better personal relations between human beings. More faith of men in men and in their abilities.

To bring about an improvement in human relations within a school, I suggest the use of such practices as are necessary to make all, boys and girls, teachers, administrators, and custodians, realize their worth to the school project as a whole; know that they are wanted; know that their efforts are appreciated; and know that they are essential to the job.

More Respect for Human Values

In addition, I suggest the employment of human beings as teachers and as administrators in the schools of America. Men and women with blood in their veins. Men and women of courage. Men and women possessing ability to see life as a unit. Men and women who are kind, generous, and understanding. Maybe, when we have solved the problem of training and selecting administrators with a gift for leadership and a knack for managing personnel, we shall have solved all problems? Good administration is a fine art. It is the

blending of all things human, spiritual, and material into a harmonious unit. It is based upon mutual co-operation which goes beyond the level of formal courtesy. In it must be faith and understanding of one another, if confidence and security are to exist.

The point is that we are all human and should not forget that the other person is human, too. We wish to be treated as human beings and we wish to have others so treated. Where this attitude is found in a professional staff, there is lack of tension, there is an environment which is contributory to the mental health of the pupils, the teacher, and the community. It is a sanctuary from strains and stresses. It is a good place to be. It is like a drama in which each member plays his own part, often ad-libbing, but with an over-all harmonious result. It is a place in which socialized understanding of other people, of other races, of other nations, is possible. It is a consecrated place in which democratic living will flourish. Such an ideal can become an actuality if men and women will have it so. If men and women will not have it so, the atomic bombs will be falling, soon.

Murals for Schoolroom Decoration

R. Henderson

The improvement of art teaching in the schools as seen in the work of many pupils is an encouraging indication of a saner regard for the aesthetic demands of childhood. Yet the ugliness of schoolrooms is sometimes exceedingly depressing even in the very buildings where art classes are doing creditable work. More interest on the part of parents and school boards in the surroundings of children at school would surely add to the joy of this and succeeding generations, for the influence of beauty or of ugliness is particularly potent in the impressionable years of youth. And both our school architecture and interior finishing and decorations are often painfully ugly and utilitarian.

A number of schools have made a start toward more attractive interiors by the use of mural paintings, and this is a most delightful and ideal beginning if the pictures are appropriate and well done. A good mural demands a harmonious setting and will often effect minor aesthetic reforms by its mere presence, its silent rebuke to the tawdry and unlovely. Paintings designed and executed expressly for the walls of a schoolroom usually arouse a sense of pride and responsibility in the pupils.

In one building there had been an unusual tendency among the pupils to mark and mar the walls and woodwork and carve up the furniture generally. It was a fairly new and substantial building but it had a grimy, cheerless interior which the children seemed bent on making worse. After a well-known artist had decorated a number of the walls with beautiful paintings those same children constituted a

self-appointed vigilance committee to keep the rooms and halls clean. They not only quit marking things up but they seemed to grow quieter and more orderly. And their change of attitude was testimony to the pleasure and satisfaction they derived from those lovely pictorial panels done for them and their school.

The interest of youth in things contemporary is appealed to by such paintings and it is a legitimate and fruitful appeal. Art teachers and patrons have been too prone to turn only to the dead past for their subjects, as if a good artist like a good Indian were always extinct. The great masterpieces should certainly have their place in the education and lives of children, but so too should the deserving work of our own time. This latter has the live spirit of present accomplishment that stirs the childish imagination. It is likely to be more real to children than is the remote greatness of Angelo or Leonardo, and it provides a logical approach to the art of other ages. In a number of California schools landscape murals represent the bold contours and brilliant colors of the surrounding country and are most effective panels for gray plaster walls.

The co-operation of artists, educators, and pupils is a wholesome and inspiring thing and should receive the endorsement and help of parents. Art exhibits presenting the work of distinguished modern painters are growing more and more common in schools both large and small, and funds for purchasing schoolroom paintings are sometimes contributed by the pupils.

The Improvement of School Board Meeting Procedures *Harlan L. Hagman*¹

A common complaint of school board members is that board meetings last too long. While overlong sessions do not by their length indicate necessarily that procedures employed are not efficient, it may be suspected that school boards whose meetings last commonly for much more than two hours should study their methods for ways to speed up their handling of business.

The purpose of this article is to point out some ways by which efficiency in board meeting practices may be promoted. Greater efficiency should result in shorter sessions with adequate consideration of all problems and perhaps increased opportunity to consider some matters of the educational program now passed over for less important apparently more pressing business problems. The suggestions are in the form of questions by which the school board may check its own meeting practices. An affirmative answer to every question should indicate that the board is handling the procedural details of board meetings in good fashion. If the affirmative answers are few, the board should study its routine with the thought of improving methods of operation.

Start Promptly, End Promptly

Check Number 1: Do meetings start on time? The responsibility for getting the meeting started on time is the president's. At the exact moment set by the board for the opening of board sessions, the president should declare the meeting open for business. The secretary should record the names of members present at the beginning, and the names of tardy members at the time of their arrival. The practice of waiting for late arrivals will build a habit of starting meetings after the appointed hour and will also develop habits of procrastination with respect to the dispatch of routine business with which meetings commonly open. The slow start is the greatest waster of the time of busy board members. A prompt beginning is an insurance against protracted sessions and weary participants.

Check Number 2: Are meetings planned to end at an hour set by the board? Among policies adopted by the board should be one concerning the hour at which regular sessions of the board will close. The practice of sitting in session until all business has been dispatched may indicate the members' eagerness to do their work well. It may lead, however, to a waste of time

¹Associate Professor of Education, Drake University, Des Moines, Iowa.

in the forepart of a long session. If the board adopts a closing hour as it does an opening hour, business will be handled promptly in order that all matters listed for discussion may be treated in the time allowed. The presiding officer, with permission of the board, may allocate discussion periods for the items on the agenda and may keep the members informed as to the progress of the meeting with respect to the passage of time. Urgent items can be scheduled early in the session with less urgent matters held for the closing minutes or carried over to another session as old business. The occasions for long sessions should be few. The set closing hour should be as scrupulously observed as is the opening hour.

Fix Appropriate Date and Place

Check Number 3: Are meetings held on scheduled dates with few special sessions? Important in the efficient handling of board business is the observance of a schedule of meetings. A day of the week rather than a calendar date should be chosen. If the board selects Friday as a meeting day, all sessions should be on Friday with fixed intervals of two or four weeks between sessions as determined by board policy. Meetings should be held as scheduled although necessarily some sessions will be less busy than others. The practice of omitting scheduled meetings on the ground of lack of sufficient business can be bad in that the backlog of business may grow so large that meetings when held will have to be protracted sessions. Omission of meetings may also prevent the introduction of unscheduled business by board members, school personnel, or school patrons. Ordinarily, the board will not lack for business when the meeting has been opened.

The holding of many special sessions may mean that the board is not using its regular meetings to the best advantage. Efficiency is not promoted by having special sessions to offset the board's ineffective use of its time. Special sessions, when held, should be confined to the purpose for which the meeting was called. Regular sessions should take care of regular business.

Check Number 4: Are all meetings held in a proper meeting place? A proper place for board meetings is one which contributes to the dignity of the deliberations of a public governing body. The board should meet on school premises and preferably in a room set aside as a board meeting room. Accessibility to important records of

the board and of the school system apart from the board should be maintained. Permanent displays of school district maps showing community development and population densities with respect to existing and proposed school plants are desirable. A continuing but changing exhibit of school materials, curriculum plans, and public relations publications will help board members maintain an acquaintanceship with educational developments. A school activity calendar and a roster of employed personnel are useful additions to the exhibit. Important to the growth of the individual in board membership is a school board library shelf of magazines and books of assistance to both the new and the experienced board member in developing a greater understanding of his work. Having all materials with which to work and having a suitable place in which to work contribute to the efficiency of the board in conducting its meetings.

Saving Time With Agenda and Minutes

Check Number 5: Are copies of the minutes of the previous session furnished to all board members before the day of the meeting? If the secretary will type sufficient copies, the board members may consider the accuracy and completeness of the minutes before going to the meeting at which the secretary's report is to be approved or disapproved. The meeting time which might have been taken up by an oral reading of the minutes will be saved and every member will have a clearer understanding of the business discussed and disposed of during the previous meeting. After the minutes have been approved, the individual copies may be filed for future reference in the board members' loose-leaf record books, and the secretary's copy, with the proper signatures, may be filed in the minute book.

Check Number 6: Are board members given the agenda for each meeting in advance of the meeting day? Of first importance in promoting the efficiency of the board in session is the listing of items of business scheduled for discussion, and the distribution of the list to all members before the meeting. Even the listing of items with no more than a mention of each is of great help to the board member who wishes to give thoughtful consideration to the business at hand before expressing an opinion about it. Of greater help is the stating of each topic to be discussed with an explanation of it, some supporting evidence for a recommendation, and a proposed board action

concerning the topic. The agenda may be drawn up by the secretary of the board or by the superintendent of schools to whom items of business not originating in his office may be suggested for inclusion in the agenda. Items not listed in the agenda may be discussed in the board session but the list of topics does permit a desirably unhurried consideration of board business in advance of the meeting and a scheduling of discussion time to prevent unnecessarily prolonged board meetings. The agenda can be filed in the board member's record book for reference in the future.

Keeping Discussion Within Effective Bounds

Check Number 7: Does every discussion follow a motion and a second? Discussion is sharpened and time-wasting debate is reduced by the president's insisting that there be a clearly stated motion with a second before an item of business is discussed. If all members have been given information before the meeting concerning the topic, everyone can be prepared to express an opinion concerning a proposed action. Time which might be spent in general comment not leading to a definite proposal for action can be used in debating and voting upon a clearly stated motion. To secure the best results through this procedure, all members must accept in good feeling the exchange of approving or disapproving opinions on a motion offered by one of the members. The member making the motion will need to accept in good spirit the defeat of his motion should it fail to pass. He should consider that the motion served usefully in keeping discussion pointed toward specific action. The motion should, of course, have been thought out carefully and phrased as briefly and simply as possible. It should have contained one clearly stated idea needing no qualifications. The presiding officer should keep the discussion closely upon the motion before the board and should call for a vote as soon as the discussion has been completed to the satisfaction of each member or as soon as the previously agreed-upon time limit for discussion has been reached.

Setting Up Routine and Long Term Policies

Check Number 8: Has the board adopted and maintained a set of policy statements governing routine and recurring business? Thoughtfully prepared statements of policy are useful in maintaining consistency of action and in shortening debate on matters which come up repeatedly for board decision. Such statements eliminate much discussion on separate occasions of such frequently arising problems as those concerned with rental of school property, use of school equipment by nonschool groups, assignments of responsibility and authority, employment of



DR. NOLAN D. PULLIAM GOES TO U. S.
OFFICE OF EDUCATION

Dr. Nolan D. Pulliam, of Phoenix, Ariz., who recently became a specialist in state school administration in the U. S. Office of Education at Washington, will lend assistance to the improving of state education systems throughout the country. He has had considerable experience in administering educational programs in Arizona which will be most valuable in his new position.

Before going to the Office of Education, Dr. Pulliam served the Arizona State Department of Education as State Superintendent of Public Instruction, and as Assistant State Superintendent. He served as a major in the U. S. Army Air Forces from 1942 to 1945, and then became executive secretary of the Arizona Education Association, serving from 1938 to 1942.

He received his A.B. degree from Central College in Fayette, Mo., in 1925; his M.A. in educational administration was obtained from Stanford University in 1932, and his doctorate in education was given by the same institution in 1946.

school personnel, promotional and salary practices, and other matters. In many cases, unless the policy itself is in question, there is no need for the problem to be considered at all by the board for the board's decision is already on record. The time saved can be put to other use. The thorough consideration of the problem by the board will have been had at the time when the long term policy was adopted.

Check Number 9: Does the board practice long term planning? Acting upon a long term plan will prevent some duplication of effort and the wasting of the time of board members in dispatching numerous small items of business. A long term purchasing plan will make repeated purchase authorizations unnecessary and will reduce the number of bills to be investigated and approved for payment. Long term building planning will make less need for protracted and wearisome sessions on building problems. Building needs can be studied before they become urgent problems, and new construction plans can be studied carefully before financing and contract-letting arrangements must be undertaken. Long term planning of improvements in the educational program will make the step-by-step progress of the school system toward an improved offering

more meaningful to board members. The proposals of improvements will be less in need of separate justification and lengthy discussion if the immediate proposals are seen in their relationships to a long range plan of improvement. Long term planning gives opportunity for thorough consideration of an over-all program and eliminates much of the chance for wasteful errors such as may occur when the board must make immediate decisions on a number of small but pressing problems. In the school board meeting, several related items under discussion can be disposed of as a group in accord with the long range projects of the school system. Time saved by eliminating small topics can be employed efficiently in the careful considering of the long range plans under which the small topics come in their proper places.

Using the Superintendent's Ability

Check Number 10: Does the board take full advantage of the professional knowledge and position of the superintendent of schools? The professionally competent superintendent of schools can lighten the work of the board of education in many ways provided the board will draw upon him to the fullest extent. In too many cases, the board does not use the professional help it has as much as it should. It may use board members and board meeting time in management functions and reports of special committees which are unnecessary if the superintendent does all the work of an administrative type. As a trained school administrator, the superintendent should be expected to administer all details of school management efficiently and the board should hold him accountable for all acts of administration. From him, the board should be able to secure complete and expert information upon all matters relative to the educational and business administration of the school system. Problems requiring investigation should be referred to the superintendent and he should then be required to furnish a competent report. Problems of policy determination are the immediate problems of the board and decisions on policy should be reserved by the board. But in order to secure information as basis for policy making, the board should request the superintendent, and other professional workers through the superintendent, to render professional opinion on policy matters. Should the board decide in examining its practices that it is not using the superintendent of schools as a professional resource as well as it might, some modifications of methods of handling board sessions may ease the burden on members of the board.

Through study of board meeting practices and the institution of improved procedures, shorter and more effective board sessions may be brought about with an accompanying increase in the efficiency of the board in its performance of important work in the service of American education.

What's Happening in Private Schools

Joseph J. Wocasek, Ph.D.¹

The present dilemma in which public education finds itself is indeed a serious one. Years ago schools had only one purpose: to teach academic subjects. If the pupil was scholarly or if he was afraid of the rod, he learned; if his interests strayed from books he learned nothing, and was eventually dismissed. Today the school must reach out and take over many more duties than before. Changing economies and customs largely have destroyed the classic home of our grandparents. The declining influence of religion as an everyday factor in the lives of children with a simultaneous increase of juvenile delinquency has posed a serious social problem for the community. In desperation the school has attempted to extend its influence upon its pupils to offset the decline of home and church. But the public school is hampered and its efforts curtailed by a disinterested or a prejudiced citizenry. Certainly it has not been possible to transpose, de facto, the tenets of home and church to the curriculum. Further, the system, suddenly saddled with a new responsibility, is torn by opposition within its ranks from conflicting educational theories. Since 1920 when mass education became the mode, efforts have been made to cope with increasingly difficult situations; no one will say today that the efforts generally have been successful.

The private schools of America have met the challenge with far greater ease. From their inception they have welcomed the opportunity of caring for the whole life of the pupil and many of them have hundreds of years of experience in providing home, church, education, and recreation. Especially is this true of the private boarding school whose chosen responsibilities include proper training of the whole child. This widely known fact is attested by the increased enrollment in private schools in recent years.

Old Concepts Modified

But although they have been widely acclaimed and generously supported for their philosophies of life, not too much is known of their actual programs of study. A large number of parents hesitate to enroll their children in a private school because they are convinced that it is little more than a clinic for Latin and Greek or a preparatory school for the ministry. It is true that many private schools were established in the period preceding the American revolution with religious motives, but these have been superseded almost completely by an utilitarian outlook. It is further true that

the old Latin Grammar school of the eighteenth century stressed the classics, but this emphasis, too, has given way to modern concepts. For those students intending to go to college, the old curriculum was largely determined by the requirements for admission to higher institutions of learning; as these requirements were altered, modifications were quickly made in the programs of the lower schools. Indeed, the secondary schools and academies in many instances, according to Gwynn,² secured adoption of numerous changes in college curriculums and in designation of college entrance subjects. For the student not going to college, however, the academy offered the greatest opportunity of choice, incorporating into the program of studies a great number of new subjects of a practical nature which aimed at preparation for more effective living. It was largely from these progressive private academies that the public high school evolved after the Civil War.

Practical Needs Recognized

What of the present-day private school? Has it kept pace with community-supported institutions in providing modern up-to-date subject matter or has it rested on gains of a century ago, or, worse, retreated to an ivory tower of tradition? Does it force a pupil into a rigid plan of study that may be totally unsuited to him?

The Sunshine Acres School, founded in 1939 at Mays Landing, N. J., recognizes the state of flux of education and of the world, in its catalog:

It is the task of the new education to preserve the best of that inheritance without which the new could never have been, it is equally the task and high privilege to see that there shall develop a planned society of all mankind free of bitterness, envies, and jealousies, and so far as possible, from anxieties, cares, and insecurities.

The Sanford Preparatory School, opened ten years earlier at Wilmington, Del., adds to this:

The school must evolve a course of study suited to practical needs—one that will integrate brain and hand. Today the boy needs such training to prepare him for the service; the girl must be ready to take a man's place as well as her own in the home. Mechanics, physics, mathematics and practical arts must be familiar to finger tips as well as minds.

Phillips Academy of Andover, Mass., after almost two centuries of existence sounds its philosophy in its latest bulletin:

Phillips Academy is a liberal modern school with an ancient tradition. Its roots are in the past from which it draws nourishment. But its spirit is that of the present and is always looking toward the future. Without embracing untested

²*Curriculum Principles and Social Trends*, J. Minor Gwynn (New York: The Macmillan Company, 1945), p. 12.

theories of education it is on the alert to discover and utilize better methods for training American boys for service and leadership in modern American life.

In the matter of religion, the fine manner in which faith is fostered in a private school without antagonism or prejudice is brought out in the literature of St. Johnsbury Academy, established in 1842 at St. Johnsbury, Vt.:

Every thoughtful person recognizes the supreme importance of religion. Boys and girls in the Academy are expected to attend the church of their choice on Sunday morning and are encouraged to identify themselves with some church school and some young people's society.

One of the best means for deciding whether the private school has retained a static curriculum or has adapted it to changing times is the examination of requirements for graduation. Included in such a list are the courses which the headmaster deems most fundamental for further study or for a well-rounded preparation for life. Of secondary, though by no means small, import are the courses offered as electives which under guidance give polish to the entire program.

Curricular Changes

The establishment of a modern curriculum was undertaken in 1946 while the author was an instructor at a New England school.³ The school had been established eight years previously and was currently in its first year in permanent quarters. With increasing enrollment the need for a more definite concept of fundamental requirements became apparent and accordingly the author was asked to make recommendations for a basic plan.

While the educational philosophy of the headmaster or founder should ultimately determine the instruction offered in a private school, it would be foolhardy to ignore the curriculum presented by other institutions. Further, the accelerated national trend toward college work focuses attention sharply on adequate preparation in secondary education toward this goal. The author, therefore, decided to canvass a large number of private secondary schools to determine the trend and similarity among the requirements for graduation and electives offered. To make the survey as impersonal as possible the author assumed the role of prospective student and requested each institution to send its latest catalog and all other available information concerning its courses of study. In a few instances personal contact was employed but only after most of the desired information had been obtained from mailed literature.

³Windsor Mountain School, Lenox, Mass.

Porter Sargent in his 1945 handbook⁴ lists about 1500 private schools approximately 500 of which are secondary schools offering a diploma or certificate upon graduation. These latter are divided further into boarding, boarding-and-day, and country-day institutions. One half of these are boys schools; the remainder are girls schools and coeducational schools in about equal number.

A Survey of Boys' Schools

The author's school being coeducational with a preponderance of boys, it was decided to eliminate girls' schools from the survey. With this condition, 123 coeducational and boys' schools of secondary level were chosen at random and request for literature was made in each instance. All canvassed institutions replied immediately with varying amounts of material. After careful study, 29 schools were eliminated from the survey as having afforded too scanty information or as having no clear-cut requirements. Results of the survey were based, therefore, on the remaining 94 schools comprising about one fifth of the secondary private schools listed in Sargent's handbook. They had the following statistics:

THE SCHOOLS STUDIED

Geographical location	Type	
Eastern states	Boarding	45
Southern states	15	
Midwestern states	9	Boarding and day
Western and southwestern states	11	Day
<i>Population</i>	<i>Enrollment</i>	
Boys only	54	Smallest
Coeducational	26	Largest
Military	14	Average

Requirements for Graduation

As a general rule all the schools required 16 units for graduation; a few granted the diploma upon completion of 15 units, but these gave no credit for fourth-year English, a required subject in most cases. Where military schools were surveyed, no attempt was made to evaluate military science courses in terms of requirements since these were in all instances in addition to the usual academic subjects. In the summaries below, the numbers indicate the instances in which the indicated amount of course work is required for graduation.

UNITS REQUIRED FOR GRADUATION

<i>English</i>	The four-year course in English generally is divided as follows: two years of grammar and rhetoric; one year, survey of English literature; one year, survey of American literature.	
3 years	6	
4 years	88	
<i>Natural sciences</i>	Science choice must include:	
1 year	44	General science
2 years	23	Biology
3 years	1	Chemistry
4 years	1	Physics

⁴A Handbook of Private Schools for American Boys and Girls, Porter Sargent (Boston, Mass.: Porter Sargent, 1945).

<i>Social studies</i>	
1 year	51
2 years	21
3 years	5
4 years	6

Social studies choice must include:

American history	57
Anc. and med. history	10
Mod. Europ. history	6
World history	6
Geography	2
Ethics	1
Sociology	1
Economics	1
Civics and Amer. Govt.	7

<i>Mathematics</i>	
1 year	3
2 years	25
3 years	44
4 years	9

Mathematics choice must include:

Elem. algebra	51
Interm. algebra	30
Adv. algebra	3
Trigonometry	7
Gen. arithmetic	1
Plane geometry	50
Solid geometry	8
Analyt. geometry	1
Calculus	1

<i>Foreign language</i>	
2 years	31
3 years	14
4 years	19
5 years	2
6 years	2

Foreign language choice must include:

Latin 1-2	8
Latin 1-3	1
Latin 1-4	3
French 1-4	2
French	5
Spanish	1

Miscellaneous

Public speaking	12	Customarily a year of these courses is required, though sometimes more. In some schools the year's work is spread over several years with fractional credit each year.
Bible, religion or sacred studies	16	
Home econ. (girls)	1	
Manual tr. (boys)	2	

All the schools require some form of physical training; this usually is spread over several years and in most instances affords no credit, though in some schools one-half unit credit is obtained.

Subjects Offered for Credit

Where there are fixed requirements for graduation, little opportunity is afforded the student to select his study program in accord with personal likes. Perhaps this is good, because often a young person has fleeting desires in accord with inspiration secured from companions, the movies, the radio, and newspapers. So often, if left to his own inclinations, he will choose a curriculum which, after his ardor has cooled, becomes a disagreeable burden and ill prepares him for subsequent endeavor. On the other hand, a curriculum which is completely inflexible may become a greater burden. The position of electives in a program of studies is an important one because it allows a student a measure of self-determination without seriously impairing the fundamental skeleton of his training. Hence, a progressive school will offer a wide variety of subjects from which electives may be chosen. If the program of required subjects is thought of as a mid-channel route which affords reasonable guarantee of educational success, then the variety of elective landings along the way will in large part determine the pleasure of the whole trip. Some schools swing completely to the right in the matter of electives and in effect provide another measure of that which already has been covered.

Others realize the imaginative and creative mind of the adolescent and offer credit courses in almost every conceivable field. Rutgers Preparatory School, New Brunswick, N. J., which has educated youth since 1766, clearly foresees this need when it states in its catalog:

No effort is made to crush the student into a common mold, for the experience of successful secondary education has proved that the cramming or tutoring mill fails in the true sense of education. Instead the instructors in charge are continually on the alert for manifestations of latent ability within the student, and strive at all times to encourage individual expression, self-reliance, and ability of self-directed judgment.

This latitude is brought out in the list of subjects offered by the survey schools and is further emphasized when compared with the rather short list of courses required for graduation. In the summaries below the numbers indicate the instances in which the course is offered for credit. In many schools extracurricular activity is of credit caliber, but because of lack of complete organization has not reached this status.

SUBJECTS OFFERED FOR CREDIT

<i>English</i>	Fund. elect.	2
4 years	94	Fund. machines
<i>Mathematics</i>	Agriculture	3
Elem. algebra	Botany	2
Interm. algebra	Zoology	1
Adv. algebra	<i>Commercial subjects</i>	
Plane geom.	Typewriting	23
Solid geom.	Bookkeeping	22
Analyt. geom.	Shorthand	12
Trigonometry	Bus. law	9
Bus. arithmetic	Bus. English	5
Gen. arithmetic	Journalism	2
Aviation math.	<i>Social studies</i>	
Calculus	American history	85
	Mod. Europ. history	68
	Anc. and med. history	58
	World history	20
	English history	17
	Current history	8
	Latin Amer. history	7
	Civics and Amer. govt.	41
	Prob. Amer. democ.	12
	U. S. in world aff.	4
	Com'l geography	27
	Economics	29
	Sociology	23
<i>Natural sciences</i>	Bible, religion, sacred studies	26
General	Home economics	10
Biology	Music appreciation	10
Chemistry	Psychology	5
Physics	Ethics	1
Adv. biol.	<i>Miscellaneous subjects for credit</i>	
Adv. chem.	Mechanical drawing	41
Adv. phys.	Public speaking	31
Physiography	Manual training	8
Aeronautics, navigation, elem. meteor.		
Radio code		
Anatomy		

Fine arts

Art, including art, creative art, art appreciation, history of art.
Music, including harmony, music survey, history of dramatics.

Extracurricular Activity

In the field of extracurricular activity the private school, especially the boarding type, occupies a unique position. Long-term planning is possible because of a permanency of equipment and a fairly stable student population, but major changes to meet new conditions or interests are facilitated because of the autonomy of each school. In addition to the various forms of athletics, are dramatics, music, writing, and the oral expression involved in public speaking and debating. Interest has also been shown in art, photography, and radio. One school, in response to student request, established a flight of the Civil Air Patrol with military regulations obtaining throughout the war years. In general it is the aim of each school to encourage a voluntary interest among the students in a practical and concrete personal acquaintance with literature, the arts, and the forms of human thought and endeavor.

Classroom Management

The atmosphere of the classroom is businesslike, but friendly and informal. Wherever possible the round-table form of discussion is employed. The student soon recognizes that the teacher is interested in his individual progress. He is stimulated

by suggestion and criticism and he is encouraged to think for himself. In the study of history emphasis is placed upon the study of manners and customs and of the historical background of our modern life rather than upon the learning of dates and dynasties. In language courses the subject material is carefully chosen so that a special study of the life and history of the peoples are integrated with the mastery of grammar and rhetoric. The whole is cast against a background of modern problems.

Summary

Graduation customarily requires 16 units of credit subjects, popularly divided as follows: English, 4 units; natural science, 1 to 2 units; social studies, 1 to 2 units; mathematics, 3 to 2 units; foreign languages, 2, 3, or 4 units; electives, the remainder. Religious instruction, public speaking, and physical education, usually but not always, without credit are mandatory in most schools.

Neither course nor schedule is so rigid as the listing and tabulation make it appear. A child's individual needs, his previous education, and the college for which he is preparing determine the choice of subjects to compose his own program of study. He is not limited by studies listed for a certain year. The school's program is

also kept flexible so that any incident of international, national, or even local importance may be seized upon as an opportunity to educate.

The school is Christian. Under guidance, religious heritage is fostered as skillfully as any academic subject.

The de-emphasis of the classic languages is evident from the fact that none of the canvassed schools require Greek for graduation, and only 11 offer it; only 12 require two years of Latin, though most offer it. The departure from classicism is no more subtly put than in the catalog of Lawrence Academy, Groton, Mass., which after more than 155 years states:

Instruction in Greek, covering the usual courses for college preparation, has been given and will be continued if desired by a sufficient number of pupils.

Perhaps the best summary of the philosophy of education of the secondary private schools can be secured from the bulletin of the Oakwood School, founded in 1796 at Poughkeepsie, N. Y., which says:

The objectives of the school are: to develop and maintain strong bodies; to encourage and evolve those traits of character that are basic and essential to a Christian personality; to lay a sound basis for further educational advancement; to provide an environment in which children may learn to live together; and to develop appreciation for our social heritage.

A Board Member Describes —**The Function and Power of the School Board**

Graeme Canning¹

Outline of Obligation

The power to make a school progressive and to advance the educational level of the community is inherent in the authority of every school board. However, this power can be dissipated through improper functioning. In order to fully understand the limitations of a school board's functions, we should consider the training and background of the individuals appointed or elected to its membership. The members of a board are invariably not educators; they are usually men who have been successful in their professional or business endeavors; they have gained the respect of their fellow citizens to the point that they have been chosen to represent the community; they are interested in fostering its fuller development.

Because the members of the board are not educators, but are men of civic interest, with democratic responsibility, they should not, therefore, permit themselves to become involved in the executive details of school administration or in petty disputes, but

should reserve their actions for solving problems involving (1) the selection and the appraisal of efficiency of the school administration force, (2) the establishment of general policies in accordance with which the executives can subsequently carry on the work of the schools, and (3) the supervision and appraisal of the financial policies, particularly the budget-making and the actual expenditures.

Selection of Personnel

The proper selection of the administrative and teaching personnel is basic to a successful functioning of the board. In large school systems it is absolutely impossible, as well as unwise, for the board to attempt to study the qualifications of principals and individual teachers. This responsibility belongs to the superintendent, who should submit all names of candidates for approval. However, in selecting supervisory and executive employees from principal on up, it is advisable for the board to meet as a body and to have an informal discussion with the approved candidates regarding their concept of leadership and supervision. This will give the board members a chance to know the men they intend

to place in charge. After all precautions have been taken in the selection of school personnel, it is still essential to be ever alert, and to appraise the efficiency of the individual men and women in positions of leadership.

Over-all View of Board

The board members in many ways are like a man in the control tower of a production plant, who has before him a master chart with which he keeps all operations moving. The board should have an over-all view of the school system so that they may approve adjustments recommended by the professional executives. They may not have a knowledge of teaching or of the technicalities of organization of the individual schools, but they should have a knowledge of the general structure, equipment, and personnel of the schools, through personal visitations and through information supplied by the superintendent. It is vitally necessary that all pertinent facts be at the command of the board, and the superintendent should be charged with the responsibility of keeping the board members fully informed on all matters essential to the smooth running of the system. Only in

¹The writer who is a member of the Knoxville, Tenn., board of education, read this paper before the Tennessee School Boards Association Convention, October, 1947.

this way can a board really be in a position to aid in the efficient operation of the schools under their control.

Knowledge of Questions

When problems arise, board members should expect to be informed on the decisions made by the school personnel. If a question is raised as to the wisdom of a decision, a condensed statement of facts should be supplied to all members, giving the reason for the decision reached. Much of this information will already be in the hands of the board if the members have been properly informed. However, each school administrator should feel that he has freedom of action and will be supported in any reasonable decision he may honestly make. His actions, however, must be subject to an impartial and fair review and not blind approval.

The Superintendent's Duty

An alert and farsighted superintendent can direct the attention of the board to the enactment of policies and the solution of major problems; he can prevent many trivial and controversial questions from reaching the board by solving these minor problems himself, and by supporting the school personnel in making decisions before small matters have flared into flames. Trivial differences, because of their very triviality, often produce emotional hatred and distrust between parents and teachers, as well as among members of the board. Some schools are constantly suffering minor upheavals because weak administrative officials are not settling complaints and trivial problems, but are involving board members apparently as a means of directing criticism away from themselves.

The Making of Board Decisions

Whenever decisions affecting all the schools are to be made, the board should act only on the advice and recommendation of the superintendent, after he in turn has obtained the facts and recommendations from the personnel in whose departments the questions are raised. Decisions involving technical, construction, or financial matters should be made only after advice has been secured from individuals trained in these fields. As a rule, the board's decision should be made in the form of a confirmation or rejection of the recommendation of the school personnel, or of other technically trained employees. When there is any likelihood of a difference of opinion, the approval and binding opinions of the board members should never be given, except by a formal vote and after an open discussion of the subject at a regular or called meeting. Each member, respecting the integrity and intelligence of the others, should withhold his decision until he has had an opportunity to hear the views of other members. Private inquiries between board members as to each other's views should be regarded as a means of securing

information and should in no way be used to bind a member's voice or vote.

Rejection of Decisions

The rejection by the board of a recommendation by the professional executives should be made with great hesitancy and only after serious consideration. In rejecting the opinion of its trained personnel, the board must realize that it takes upon itself the full responsibility of any subsequent resulting failures in its policies and in the acts of its staff. The repeated failure of a board to confirm the school personnel's recommendation must be followed by a change in personnel, for no school system can long operate efficiently when the school executives and the board fail in co-operating and supporting each other.

The Financial Supervision

Although the members of the board may not be trained in the organization of schools or the methods of teaching, they have as a rule, proved their ability to evaluate expenditures of public funds. It is on the board that the people rely for wisely fixing the amounts to be raised by taxation and of conducting the schools within the funds available. In their practical experience as business executives, board members have a background which equips them to check financial matters, possibly far better than the school superintendent and the business manager whom they have employed. Each individual board member should expect monthly a condensed statement of expenditures, a summary of bills to be paid, and a statement of the balances remaining in the several budget categories. These appropriations and expenditures must be weighed not only in the light of the needs of education, but also in relation to the ability of the community to supply them.

Checks on Expenditures

In controlling its finances, the board may at times be obliged to hold in check an aggressive administrator who, through his very superior energy, is inclined to throw educational services out of balance. This we have sometimes seen in overemphasis on such popular subjects as music, art, athletics, technical training, and health.



These subjects, while good and valuable, must be kept in balance with other less spectacular subjects, and to do this requires constant alertness in guarding against educational unbalance.

Support of the People

When all of the factors in an educational program have been considered and a decision reached, it then becomes the duty of the board to fully inform the people of the needs of the schools, and see to it that fully sufficient funds are provided.

No compromise is justifiable, without additional facts that warrant a revision of original decisions. The strength of a board is in direct relation to its own efficiency in the performance of its real functions, and only through strict observance of the above principles can the board retain its inherent absolute power. Its membership must be conscious that they have assumed a responsibility over the life of children, a responsibility they cannot delegate to others, and where the welfare of youth is involved, they must be ready and willing to place the responsibility where it belongs and to champion the cause of education as far as the ability of the community permits.

Individual Duties of the Members

A board's strength rapidly wanes whenever any member fails to master problems and act on his convictions. Too often, members may be appointed or elected who seek the honors of the position, not the responsibilities. These members soon find that membership means work, and having faith in the ability and judgment of one or another member, become mere echoes of the thoughts expressed by this influential individual. To retain its full power, each board member must think and act independently; possess equal authority; and give his support only to policies which have been analyzed and found meritorious. A board's power is undermined by its members following blindly a leader, trading or compromising basic principles, covering up repeated errors, or acting on measures without personal knowledge or on the basis of group pressures.

Nature of the Board

A board member is not a private individual. He is the voice of the people—parents and citizens—calling for an opportunity to receive an adequate education for the welfare of the children. As the community grows and progresses, so also should the board change; its members must be forward-looking, not content with the past, but ever ready to adopt new methods that have proved to be progressive. Each member should speak as the voice of a parent guarding his children, bear patiently, weigh deliberately, and decide impartially each educational problem, and thus guard the full inherent power of the board to command and obtain obedience for the benefit of child and of nation.

Odyssey Toward Quality

William G. Darley*

Elsewhere¹ it has been pointed out that as early as the eighteenth century Rumford became concerned with methods of reducing the brightnesses of flame sources in order to provide more comfortable seeing conditions. It is possible that his work was the first step taken on the odyssey leading toward quality. Two centuries later we are still on the trail. Today our goal, the ideal quality of lighting, is in sight although we rarely find much of it around us. At least we have the knowledge which can put us on the road to quality without further dallying, if we want to get there badly enough.

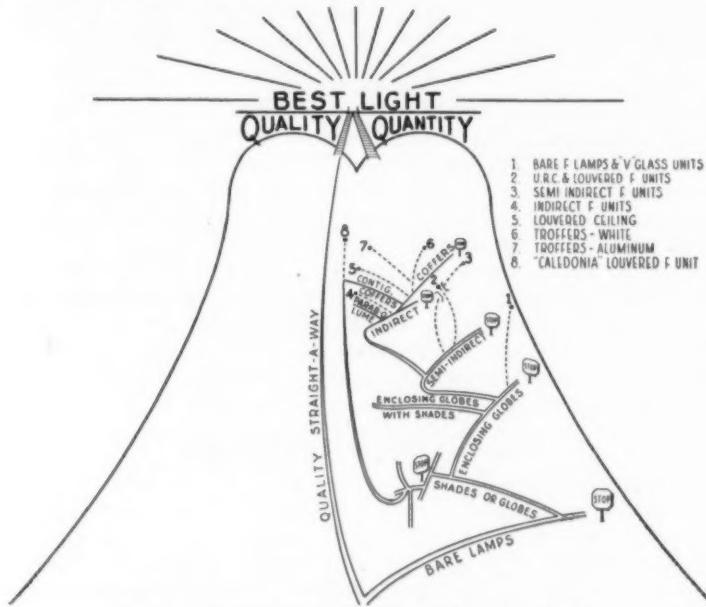


Fig. 1. The Road to Better School Lighting.

Best light, where our odyssey will really end, is situated on the twin peaks of quality and quantity (Fig. 1). Since the road leading to best light via the peak of quality is the more obvious one to use,² it is unfortunate that Rumford's lead was not followed directly to its conclusion. Instead, early in the twentieth century when the filament (incandescent) lamp came along, our feet were firmly planted on the road leading to quantity. With quantity, or the desire to increase foot-candles as the goal, the development of new types of lighting hinged more on their ability to produce higher foot-candles with some reduction in visual discomfort compared to preceding types, rather than upon their conformance to principles which would assure the maximum visual comfort and efficiency available for any foot-candle level. This approach has provided many a disappointing turn and dead end, thereby handicapping our lighting progress to an unconscionable extent.

There were ample extenuating reasons for the choice of routes. Probably the greatest was that lighting practice with the filament lamps naturally followed along the same direction as that taken by open flame sources. There was little which could be done to a flame source to make the lighting which it produced comfortable. The problems of fire, heat dissipation, and mechanics were too great. Then the light available from the sources was

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¹"Seeing in the Schoolhouse, I," AMERICAN SCHOOL BOARD JOURNAL, Aug. 1945 (Vol. 111, No. 2), p. 29.

²A study of the *Quality of Lighting* would have been the natural beginning since glare in its primary form (a bright light source in the visual field) produces a relatively obvious effect upon the ease of seeing. The effect of the *Quantity of Light* on seeing is much less obvious, particularly once there is enough light to see the task.

limited, and every lumen was needed to make tasks visible. No light could be "wasted" by cumbersome devices to reduce glare. This applied equally to lighting practice with early filament lamps.

In retrospect, it appears that during our journey toward quantity we have been buffeted by the elements of direct and reflected glare, and have more or less alternately tried to protect ourselves first from one and then from the other. In order to follow some of the reasoning behind the haphazard progress of good lighting practice toward quality, it is, therefore, necessary to be acquainted with certain aspects of direct and reflected glare.

Direct Glare

Direct glare is present when there are brightnesses in the visual field which are higher or lower than the average brightness of the visual task, i.e., when disturbing brightness ratios exist.³ The higher brightnesses are more deleterious than the lower brightnesses.

As brightness in the visual environment increase, we become less tolerant of a given disturbing brightness ratio. A quality of lighting which might be barely tolerable under certain conditions, may be made intolerable merely by increasing the brightness of the light source. This can happen, for instance, when a larger lamp is put in an enclosing globe. In this case, the brightness ratios are unchanged since the brightness of the globe and of all other surfaces illuminated by it increase correspondingly. It is obvious, therefore, that no effective progress could have been made toward quantity without doing something to improve the quality of lighting, as long as systems were employed which were barely comfortable or acceptable at the brightness levels existing at the time.

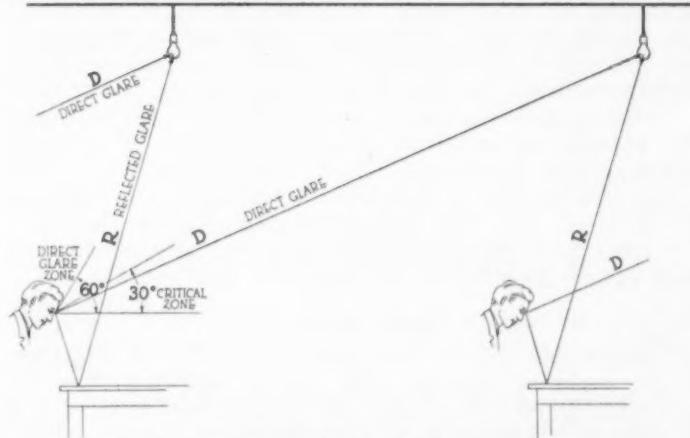


Fig. 2. The Evil of Glare Resulting From the Use of Bare Lamps.

In so far as direct glare from lighting fixtures is concerned, the extent of the visual field is limited by the physical characteristics of the observer's eyes and eyebrows. In general, assuming the line of sight to be horizontal, it can be considered that the direct glare (D) zone for luminaires extends from the horizontal to 60° above the horizontal (Fig. 2). As the angle between the line of sight and the glare source increases, the glare effect is reduced.⁴ The more critical angles in the D zone are, thus, those nearer the horizontal line of sight.

³"A brightness difference between the work and its surroundings makes it more difficult to see the work, or is disturbing. This brightness difference is called brightness ratio." See footnote 2.

⁴"Discomfort Glare and Angular Distance of Glare-Source," Illuminating Engineering, June, 1946 (Vol. XLI, No. 6), p. 485.

Brightness is measured by the foot-lambert (ft-l). If ten foot-candles (ft-c) were provided on a mat surface having a reflection factor of 70 per cent, the brightness of the surface would be 7 ft-l. Many of the papers used for classroom materials have a reflection factor of the order of 75 per cent. In a classroom lighted to 20 ft-c, the base or task brightness would be of the order of 15 ft-l; at 50 ft-c, it would be around 35 ft-l. For ideal seeing conditions in the classroom, there should be no brightness in the visual field higher than the base brightness—certainly not within the critical zone extending from the horizontal to 30° above the horizontal (Fig. 2). How far even good practice has deviated from the ideal will be seen as we proceed with the story of our odyssey.

Reflected Glare

If the task and all of the surfaces surrounding it had mat finishes, reflected glare would not exist. This rarely happens. However, the brightness of mirrorlike reflections (images) in even the most glossy surfaces seldom amounts to more than 2 per cent of the brightness of the source reflected. Experience with well-designed lighting systems indicates that reasonably satisfactory conditions prevail if the brightness of the source reflected is not more than 30 times the brightness of the task.

Assuming the above value to be correct, we arrive at a fundamental of lighting design: The brightness of a source in the reflected glare (R) zone (Fig. 2) may be 30 times higher than in the D zone (in which latter zone the brightness of the source should not exceed that of the task).

It has been argued that at low levels of lighting—2 ft-c or perhaps 4 ft-c one is not much bothered by light sources that are too bright or by contrasts that are too great. The author believes that this argument is advanced to excuse the lack of attention to quality during the early days of filament lighting rather than to condone poor seeing conditions at low foot-candle levels. Yet, the argument permits the presence of the elements which will, in time, cause the user to cry out, "Too much light!" actually meaning, "Too much glare!" From such arguments have developed the dead ends which have made our journey to quantity such a scramble (Fig. 1).

In tracing the more obvious pattern of the development of good practice in schools, offices, and drafting rooms, lighting with filament lamps provides the foundation. As Figure 1 attempts to illustrate, each type of lighting mentioned has represented some improvement over the preceding type, and so has made possible higher foot-candles. Each type, in turn, has bared its own shortcomings as foot-candles increased. (The discussion will be based upon the progress of *good practice* since it is fully appreciated that the lighting in the majority of our classrooms has not gone beyond the first three types covered.)

Bare Lamps

It is true that lighting with bare lamps (Fig. 2) was about all that could be expected when the filament lamp was first introduced. When it is considered that the lighted filament of the lamps had brightnesses of many thousands of foot-lamberts⁵ and that task brightnesses were only 1 or 2 ft-l, it is easy to understand the seriousness of the direct and reflected glare plaguing early users of electric lights. The disturbing brightness ratios were in the thousands.

Shades or Bowls

One of the first steps toward quality was the use of deep glass shades or bowls (Fig. 3). The brightness of these varied over a wide range, but brightnesses of the order of 600 ft-l for the outside of the bowl were common. This brightness in the D zone was a substantial improvement over that of the bare lamps; however, the protection provided did not extend throughout the entire zone. At the same time, the brightness in the R zone was unmodified, so that from the standpoint of

reflected glare the shades offered no improvement over the bare lamps.

It is unfortunate that the possibilities of the shades or bowls were not fully explored. It appears quite probable, as suggested by Figure 1, that an exhaustive study of their application from the quality instead of the quantity aspect would have resulted in a fundamental system which would have provided a more direct approach to best light than the one taken.

Enclosing Globes

Possibly the first generally used "lighting fixture" or luminaire

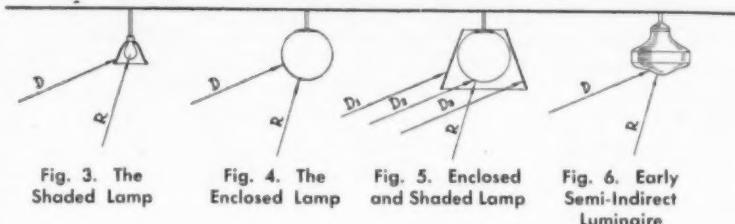


Fig. 3. The Shaded Lamp

Fig. 4. The Enclosed Lamp

Fig. 5. Enclosed and Shaded Lamp

Fig. 6. Early Semi-Indirect Luminaire

was the enclosing globe (Fig. 4) which has appeared in myriad shapes and sizes. The brightnesses of the globes vary over a wide range, with the best around 1200 ft-l, and 1600-ft-l being a common brightness value. There is no question but that the globes were a great improvement over the shades for the R zone. In the D zone, however, brightness was increased as much as two to three times. The deleterious effect of this increase was offset to some extent because the globes provided brightness protection throughout the entire D zone, and because higher foot-candle levels raised brightnesses generally. On the whole, the globes represented a material improvement over the shades or bowls which they replaced.

Enclosing Globes With Shades

While enclosing globe lighting of 5 to 10 ft-c is not good from the standpoint of quality, it was tolerable. It was found, however, when it was attempted to obtain higher foot-candles by putting larger lamps in the globes in an existing installation, that the brightness ratios in the D zone (which were unchanged) became distinctly annoying.

An expedient permitting the use of an enclosing globe installation to obtain higher foot-candles is the use of the "parchment" shade shown in Figure 5. The brightness of the outside of the shade (D_1) is 50 ft-l and of the inside (D_3), 600 ft-l. The brightness of the globe, which may be almost doubled, is present in some of the D zone (D_2) and in the R zone.

Observation indicates that in long rooms where the shades can be fully effective on distant units, the system offers a material improvement over the globes alone. There is also available today a unit combining a globe and a plastic shade which has considerable merit. These developments are indicative of the possibilities of the shades or bowls system which were not originally fully explored, and which have not been exhausted yet.

Semi-Indirect Units

Enclosing globes were a great improvement over bare lamps because of the lower brightness of the globes. The lower brightness resulted from the greatly increased area of the light source, which caused the luminous flux emitted per unit area to be reduced. It is possible that this procedure would have had an even greater potential had it been practical to make globes of even larger size. There are, however, practical limitations on the size of glassware. To provide the ever higher densities of luminous flux (foot-candles) called for on the task without increasing the number or the brightness of the already glaring fixtures it became necessary to utilize the ceiling above the fixture as a secondary source of light.

Some of the early semi-indirect luminaires employed to accomplish this result were mounted close to the ceiling (Fig. 6) and had fairly high brightnesses in the D and R zones (1000-ft-l).

⁵The brightness of a modern filament lamp is over 50,000 ft-l.

Some later fixtures, particularly those suspended from the ceiling had lower brightnesses (400 ft-l). Ceiling brightness ranged from 300 to 100 ft-l. Semi-indirect lighting resulted in an improvement in the brightness conditions in both the D and R zones compared to lighting with enclosing globes.

Indirect Units

The desirability of eliminating the relatively high brightness of the semi-indirect unit soon became generally accepted, with the result that indirect lighting (Fig. 7) quickly superseded semi-indirect as good practice. Since an indirect luminaire is one which directs 90 to 100 per cent of its output upward, it may be either luminous or opaque. The brightness of good luminous indirect units in the D and R zones is not more than three times that of the ceiling above the units. The brightness of the ceiling varies with the foot-candle level provided, the

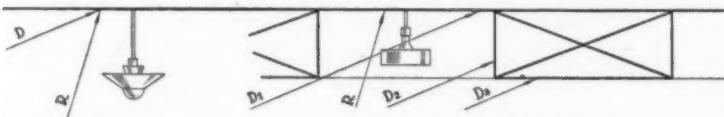


Fig. 7.

Indirect Luminaire.

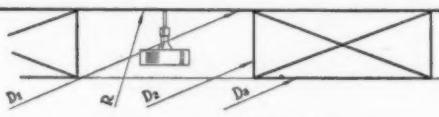


Fig. 8. Coffer Lighting.

distribution of the unit and its suspension distance from the ceiling. A maximum ceiling brightness of around 75 ft-l for a 20 ft-c installation in a classroom is quite common.

Indirect lighting provides the highest quality system employing filament lamps in general use. It was introduced when lighting levels were in the 10 to 20 ft-c range. In this range the brightness ratios it creates in the D zone because of ceiling brightness are acceptable. As a matter of fact, for a period of time, indirect lighting was the great panacea — being prescribed for many lighting problems for which later experience has shown it has its limitations.

It is possible that our story would end here if lighting levels had held at 20 ft-c. As it was, good practice called for levels of 30 and then 50 ft-c in office and drafting areas and in sight-saving classrooms, and the brightness ratios which had been acceptable at the lower levels became distinctly uncomfortable.⁶

Indirect lighting has another serious fundamental drawback. It is not an efficient producer of foot-candles. This drawback is aggravated by the availability of inefficient indirect luminaires. Better units have as much as a 70 per cent higher output than the less effective ones.⁷

Coffers and Coffer Lighting

Coffer lighting (Fig. 8) answers some of the problems of indirect lighting, but because in its development emphasis was placed more on quantity than on quality, certain fundamentals were subordinated to foot-candles. Coffer lighting utilizes a highly efficient indirect unit recessed in a coffer, usually square. The combination produces foot-candles effectively.⁷ In some installations, the ceiling area devoted to the coffers has been one fourth of the total; e.g.: 4 by 4-ft. coffers on 8 by 8-ft. centers. Compared to indirect lighting, Coffer lighting results in a higher ceiling brightness immediately above the lamps (250–500 ft-l), which affects the R zone. The sides of the coffer, however, materially reduce the area of the more brightly lighted ceiling in the D zone, and the brightness of the ceiling away from the unit is definitely lower. The brightness of the sides (D_2) is of the order of 80 ft-l. From the standpoint of

⁶"What Is Wrong With Our 50 ft-c Installations?" *Transactions Illuminating Engineering Society*, Feb., 1937 (Vol. XXXII, No. 2), p. 208.

⁷"Indirect Luminaires—Efficient and Inefficient," *Transactions Illuminating Engineering Society*, Mar., 1939 (Vol. XXXIV, No. 3), p. 255.

the coffer itself, an improvement in the D zone is achieved with some increase in brightness in the R zone. The over-all effect, however, is seriously impaired by the high brightness difference existing between the ceiling and walls of the coffer and the unlighted portion of the ceiling (D_3).

Contiguous Coffers

When the entire ceiling is devoted to coffers (Fig. 9) a considerable improvement results. In the first place, for a given level of illumination, the brightnesses in the coffer are reduced to one fourth of the value required when each coffer has to light four times its own area as described in the preceding paragraph (a 16 sq. ft. coffer lighting a 64 sq. ft. area). Secondly,



Fig. 9. Good Type of Coffer Lighting.

there are no large expanses of unlighted ceiling to create disturbing brightness differences.

It is interesting to note that coffer lighting is closely related to shade or bowl lighting (Fig. 3) and to lighting employed enclosing globes with shades (Fig. 5). In all three cases, the systems consist of a light source shielded in the D zone by a louver. The brightnesses in both the D and R zones have progressively decreased, that in the R zone remaining somewhat the higher.

Parab-O-Lume Ceiling

Even contiguous coffers leave something to be desired, since their brightness is higher than that of the work. This problem could be solved by substituting large parabolic reflectors having a semispecular finish for the mat white coffers. The reflectors could be spun, using either aluminum or steel which could be painted with aluminum; or the reflectors could be made of plaster, as the coffers have sometimes been made, and painted with aluminum. A third solution is to use the parabolic reflector

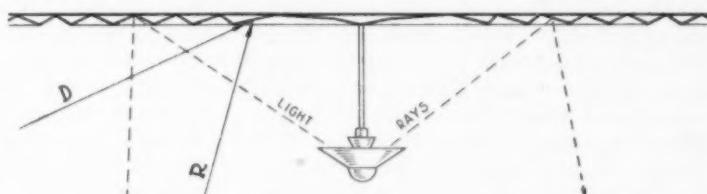


Fig. 10. Parab-O-Lume Ceiling Lighting.

shown in Figure 10. For this unit the reflecting surfaces (at the ceiling) are segments of parabolas having a common axis but different focal lengths.

It was practical to make a modified ceiling of the above type using stamped sheet steel painted with aluminum.⁷ The results with this so-called Parab-O-Lume ceiling were most encouraging. The average ceiling brightness in the D zone was about one-half of that with a conventional indirect installation. In accordance with the fundamental established earlier, the somewhat higher brightnesses in the R zone were acceptable. Unfortunately, the development never had the chance it deserved due to difficulties with early aluminum paints, the advent of the fluorescent lamp and the wartime restrictions on the use of steel and aluminum for such purposes.

(This article will be concluded in the January JOURNAL, with a discussion of the problems of fluorescent lighting.)



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Co-operation Cures Oakland Truancy Problem

Rex H. Turner¹



For a number of years there has developed a close co-operative relationship between the Fremont High School and the Eastern Police Station in Oakland, the two being just a block apart. This had been brought about by the acquaintance of the principal with the officers and men in the Eastern Station to the point where frequent discussions were held of various youth and school problems, and especially those involving potential or known juvenile delinquency.

From this relationship it was natural that a plan develop which would further this co-operation in terms of an attempt to meet specific difficulties. The schools have found in the past that many of their known truants were also juvenile problems to the police. Concurrently the police had known that the cases they handled invariably had a record of truancy.

This high correlation brought about a suggestion that a more effective procedure for both schools and police might result if a police officer and a supervisor of attendance joined forces and worked as a team. This suggestion was presented to Chief Tracy of the Oakland Police Department and Dr. William R. Odell, superintendent of the Oakland public schools. It met with their immediate approval.

The Plan of Service

The plan was inaugurated in the fall of 1946 with two teams, one working with the schools in West Oakland made up of a police officer from the Central Division and an attendance supervisor, and the second team having its police officer assigned by the Eastern Division, with another attendance supervisor. The Central team police officer worked in civilian clothes, whereas the one from Eastern wore his regular police uniform. (From this first year's experience the uniform does not seem to have any advantage over civilian dress.) Both teams had available police cars with two-way radios.

Before the plan actually started the attendance records of the schools were studied and three schools in the West and three in the East with the worst attend-

ance percentage record for the previous school year were selected for service. In both areas there was one junior high and two elementary schools. The principals of these schools, the captains of police in the two stations, the two attendance teams, one of our consultants in individual guidance, and the writer were called together for discussion.

It was decided that our first effort should be directed toward the younger ages, and to limit the work to pupils before truancy patterns had developed to a marked degree. During the entire first semester the teams worked on students from about the fourth through the ninth grade. This conference further set up a plan for screening the cases carefully so that only the most difficult of truancy cases would come to their attention in order to avoid taking health or psychopathic types of cases who are handled by our Department of Individual Guidance. All cases given to the teams were cleared through that department prior to being released to the attendance teams. Some one individual in each school was responsible for this screening process, and that same person had the further responsibility of reporting these cases to the team and providing the team with all essential information. After the team made the investigation, action was reported back to this same person.

Conferences Develop Understanding

It developed after the plan went into full operation that there was need for holding regular conferences with all of the schools concerned, with representatives from the Probation Office, and later with representatives from the Youth Authority. As the plan progressed, additional schools were taken over by the teams until at the end of the first year each team was handling eight or ten schools, and in addition had followed the pupils who were in H9th grade in the fall semester into the L10th grade in their various senior high schools.

The conferences mentioned above proved to be very helpful because many cases were discussed and procedures in dealing

with various social agencies, both public and private, were developed. It is felt that these conferences were the means by which many errors were avoided and procedures developed which enabled the teams to carry out their program with the least possible conflict with other individuals or groups. In addition, the sharing of ideas by all acted as an in-service training program and developed a high degree of morale in the entire group, which included our regular attendance supervisors and members of the Department of Individual Guidance in addition to the groups named previously.

Throughout the year it was found that a very high per cent of our serious truancy problems, many of which were of several years standing, have been entirely cleared up. The teams have avoided what might be called "typical" police methods, but nevertheless have been insistent that parent and child obey the school law and the child attend regularly.

Persistence in Home Contacts

Contacts were made with the home at almost every possible hour, from 6:00 in the morning until late at night, even on week ends. If it was necessary to make three or four calls a day at the home, this was done. As a result of this careful and consistent checking, pupils and parents found that they could no longer "get by," and when they realized this, attitudes in most every case were decidedly improved. This close supervision provided a steady influence for the youngster, informed many families who were new to Oakland, as well as old-timers, of California attendance laws, removed entirely from the mind of the student any question which he might have had about attending school, reduced the number of cases taken before the Prosecuting Attorney from the six to eight weekly average of last year to between one and two, stimulated a high morale among teachers and principals in the schools, and, for a large percentage of students who returned to regular attendance, enabled them to do a better job of schoolwork merely because they were there regularly.

It was recognized that returning truants to school and keeping them there was only

¹Assistant Superintendent of Schools, Oakland, Calif.

part of the solution of their problems. Subject offerings must be made available which would better meet the needs, interests, and abilities of these children. An even more serious attempt than that made in the past was made by each of the schools this year on these serious problem cases. In addition to these adjustments in the programs of individual pupils, in one school a special class was set up for the twenty worst problem boys. Most of these cases have been reported previously to attendance teams. Practically every one of these twenty boys is no longer an attendance problem. Other plans are being developed in two other schools, and as rapidly as similar needs evidence themselves an attempt will be made to meet them.

Attendance Improved

It would be interesting to tell the stories of the individual cases that were cleared up through this co-operative attendance team procedure, yet a separate paper could best be devoted to that one phase of the program. Suffice it to state that during the first three or four months of the plan's operation, not only was attendance greatly improved, but the number of cases sent to the Prosecuting Attorney were greatly reduced, and the percentage of juvenile crime by the 14-15- and 16-year-old age groups was steadily going down in the two areas covered by these teams in contrast to a rise in comparable crime in other areas. In addition, in the early stages of the program, literally dozens of cases of petty theft and juvenile delinquency were uncovered by following up these truancy problems.

Another by-product of this program has been that there are few, if any, new truancy cases developing. Pupils know that on the first truancy, the attendance team will be at their home, working with their parents, with them, and the school. Consequently undesirable habit patterns are being prevented. In addition, the older students are not able now to boast to the younger ones of their escapades and how they are able to "cut" without detection.

The use of the two-way radio has greatly speeded up the work of apprehending pupils who cut periods only and has also been very helpful in the solution of other types of school problems. The school telephones to the central police radio broadcasting office, that office relays the information to the patrol car, and usually the car with the team is at the scene of difficulty, whether there be a truancy problem or a fight, within two, three, or four minutes.

It should be further noted that the Chief of Police has ordered all members of the Juvenile Detail, city wide, to pick up any pupil of school age who is on the street during school hours, and either deliver him to his home or to Juvenile Headquarters and request parents to call for him. Along with this service the Juvenile Detail is closely checking on swimming pools, show



houses, and other recreational areas where youth illegally absent might gather during the school day.

Entire City Now Covered

It was planned at the inception of this procedure to organize the third team in the second year provided results were obtained which made this desirable. The work of the first two teams proved to be so successful during the first year that a third team was set up for the fall of 1947 and the three teams now cover the entire school district composed of some 75 schools, elementary through senior high school.

Shortly after the plan was set in motion last year the problems in the elementary schools were completely solved, so that it is only occasionally now that an elementary school pupil is referred to a team, thus enabling the three teams to concentrate primarily on the 13 junior high schools and 6 senior high schools.

At the end of the last school year each school reported the results of the work on all cases handled. The two teams during 1946-47 handled 432 different cases. An analysis of the results showed that 63 of these had left school for one reason or another during the year, and 21 were cases that should not have been given to the team. This left 348 cases actually followed through, of which it is felt that 123 were completely solved; that is, they were back in school regularly and in most every case doing better schoolwork; 134 showed great improvement; 64 some improvement; and 27 on which little or no success was noted.

The use of these teams has not removed the need for the regular attendance supervisor work. It has definitely lightened that load, however, and has freed their time so that they may take over additional cases, which, because of their previous load, had not been referred to them by the schools.

Co-operation Extended to Other Youth Agencies

All in all, this has been a most successful experiment in that it has demonstrated

conclusively that there is a great need for very close co-operative effort among the representatives of the Probation Office, Youth Authority, police, and schools in their dealings with youth.

It should be mentioned, further, that a similar close relationship with the city health department has also sprung up during this year when it became apparent that many families and pupils were "encouraging" illness and various communicable diseases, such as scabies, pediculosis, etc., by their general apathy and indifference to treatment, and thereby extending unduly the absence from school.

This procedure has proved further the desirability of all agencies dealing officially with youth getting together frequently for discussions, sharing of problems, the understanding of each other's procedures, and the development of a healthy respect for a close co-operative program to meet the ends which are more or less common to all.

USING LOCAL RESOURCES

The local community may well be considered to be the laboratory for the social studies. Through the utilization of this laboratory material children may participate in real life experiences which provide vitality to the instructional program and add meaning through beginning with that which is familiar to the student. Such problems as those involving co-operation, interdependence, tolerance, vocational choice, and understanding of government services are numerous in any local situation.

Supervising Principal John P. Milligan reports that the school system at Glen Ridge, N. J., is especially rich in local resources. To facilitate the use of these resources the members of the teaching staff of the Glen Ridge schools have compiled a list of the resources available. This list is divided into two sections: (a) the institutions, places, and services which can be utilized; (b) the people in the community whose aid can be enlisted. Some of the resources in and around the community are: trains, boats, airplanes, trolleys, buses, museums, arts and crafts shops, factories, parks and lakes, historical places, places for nature study, farms and dairies, and communications.

Audio-visual aids have an important contribution to offer in providing children with direct experience in contrast to the various experience involved in the use of the printed page. In this connection the schools are making use of: (a) maps and diagrams, (b) the use of the stereograph and stereoscope, (c) the use of the opaque projector, (d) the use of the motion picture, (e) the use of the radio, (f) the use of etched glass slides, (g) an audio-visual bibliography. A list of audio-visual aids available has been compiled and a committee appointed to consider problems of equipment and care for and distribution of equipment.

Faculty Balance and —

Equalizing Salaries for Men and Women Teachers

Herbert B. Mulford¹

Boards of education and faculties of many Illinois school districts are in a dither over equal pay for equal work for men and women teachers.

In the 1947 session of the Illinois General Assembly, a "sleeper" legislative bill was smuggled through to enactment providing that school boards must pay the same salary to women as to men teachers for the "same work." Legal opinions have been sought to justify inequalities on various grounds. There are sufficient exceptions to enable any adroit school board to get around the law. This calls for an explanation of the difference between conditions and theories in the present dilemma.

As has been detailed by the present writer in the JOURNAL repeatedly in years past, the basic problem is not whether teachers of one sex are better than those of another, and therefore require higher salaries. Rather it is the condition which confronts the given school board of getting men at all to balance the present unbalanced faculty. Proverbially the American public school faculty is overbalanced, especially in the elementary grades, by too many women as compared with men. Until the war may have upset statistics, the schools of this country were the one startling example of overfeminized public institutions. This statement is not made on the basis of discrimination against women, but on the grave psychological and sociological need of the pupils, both boys and girls, for meeting normally both men and women in their daily school life as they must in later life.

Balancing the Staffs

This cannot be accomplished in the one-room rural school taught by a woman. Nor is it feasible in districts where 80 to 90 per cent of the teachers are women. Yet the lower figure is almost ideal in the minds of many superintendents of elementary schools, due to the fact that they are not even attempting to enter men much below the sixth grade. Opposed to this is the much higher level attained by many high schools that aim to balance at least on a 50-50 basis or to swing the figure over to 60 per cent men and 40 per cent women.

Notwithstanding much theoretical argument in favor of "equal pay for equal work," the condition which had been confronted was the necessity openly to admit the need to pay more for men than was necessary for women of equal talent. Thus in many school systems where the administration consciously set out to give the

¹Wilmette, Ill.

children the benefit of a psychologically and sociologically balanced faculty, the given system had built up definite contractual relations on the acknowledged discriminatory pay basis. In many cases this had been in vogue for some years before the war, as well as before the passage of the recent legislation.

Faced with the problem of preserving the status of the faculty balance, which often had been built up with great difficulty during the teacher shortage, wartime and postwar, numerous subterfuges have been used to comply with the letter, if not the spirit, of the law. Legal opinions say that so long as men teachers are given specialized duties to perform, the work is not "equal" with that of the women teachers, and hence the pay need not be identical. Patterns differ greatly, but here are some of those currently discussed.

Reasons for Higher Pay

With high schools it is somewhat less difficult than with elementary schools. One device of the former is to set up standards for "department heads," and then never to give any such positions to the women. Another is to do like the players of an orchestra, "double in brass." The men are given special duties to run bookstores, coach athletic teams, supervise certain extracurricular activities, and so on.

In elementary school districts resort to these subterfuges seems more farfetched than in high schools. Still there is visible a rash of new assignments openly acknowledged to be for the purpose of circumventing the law. Many of the new styled positions would not have been developed had it not been for the fact that the very law which was set up to prevent one type of discrimination is working to jeopardize the balance in the faculty which the administration has long striven to build up.

To many professors of school administration, the idea of any discrimination in salary on an acknowledged basis of sex is anathema. They say that it is not fair and that many of the explanations set up for the discrimination are faulty in logic. The fact remains, however, that currently exactly what is described here is taking place — that it is a condition and not a theory which confronts school boards and administrators.

Easy Security Possible?

Thus far there is no sign of concerted action on this problem. Testimony regarding the passage of the law indicates that school people either thought the law would

not go into effect or that it would not do any harm. It remains to be seen how many administrators are having enough trouble in the circumstances to warrant taking up a study of practical conditions and to attempt in a large measure to produce plans which they and school boards can get behind to produce ways and means to balance the faculty. Those who complain of the need to resort to subterfuge to nullify the law are emphatic in their statements that many of the efforts at easy social security for teachers work against the future standing of the profession as a whole.

WILL THERE BE SCHOOLROOMS FOR ALL?

The Indianapolis board of school commissioners, in a recent publication which discusses the educational services available throughout the public school district, raises the interesting question whether schoolrooms will be available when the present rapidly increasing group of babies grow up. The board calls attention to these significant facts:

1. The birth rate since 1933 has risen rapidly in Indianapolis — from 14.6 per thousand in 1933 to 30.2 per thousand in 1946.

2. The increase in birth rate is reflected later in increased elementary school enrollment. School buildings should keep pace with the increasing number of pupils.

3. Many elementary school buildings already are overcrowded in rapidly growing residential areas.

4. Almost 7½ per cent of our elementary schools are more than 70 years old. Twenty-five per cent are more than 50 years old.

5. Only 16 new classrooms of the total of 1229 elementary school classrooms have been built since 1940.

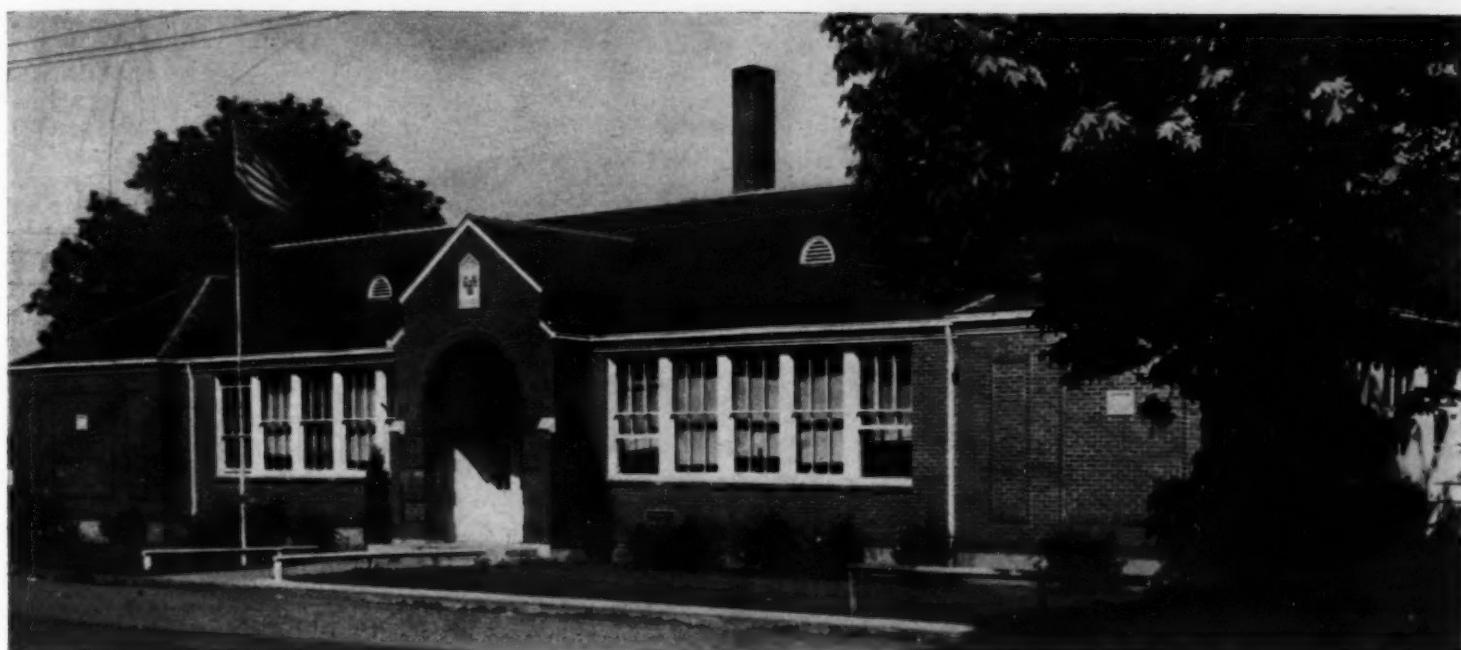
6. No new elementary schools have been built since 1940. No new elementary schools have been added to the system since 1929.

7. Old elementary schools too close together in some areas should be consolidated and new buildings erected to take their place.

8. Portable school buildings in 1930 housed about 3000 elementary pupils. Most of these buildings were eliminated between 1930 and 1940. To avoid such makeshifts a continuing building program is needed.

More than a year ago the board of school commissioners began a survey of school needs and formulated a complete building program. Except for emergency projects, however, it has been impossible to carry out the plan because of the high cost of building labor and the difficulty of obtaining building materials. At present, only one elementary school is under construction to replace a school destroyed by fire. An addition to one school has been completed and a welding shop has been put into service. A site has been purchased for the new Emmerich Manual Training High School, and plans have been completed for at least three elementary schools. Tentative plans have been outlined for other buildings indicated as necessary because of neighborhood crowding.

The board is worried because school facilities are being used to a greater extent than ever by the community, and additions and the remodeling of a large number of elementary schools is indicated by the increasing demands for community activities, recreation, and adult education. The board is co-operating with the local park board in the management of community recreation.



This school, complete with gymnasium and lunchroom, was the best of the suburban schools that consolidated with the neighboring city district.

We Consolidated Our Problems

Clarence Hines¹

Ordinarily when a person or a group is confronted with problems seemingly without a solution, an attempt is made to shift them to someone else more capable of finding an answer, or of joining with others to seek a common solution. In the matter of school consolidation, as it affected the public schools of Eugene, Ore., and adjacent suburban areas in the spring of 1945, both of these things were done. A common solution was sought and the problems were shifted to one school board and one administration for solution. After two years of struggling with the problems involved, and with at least a partial solution in sight, school authorities are in a position to set down the facts as they appear at this time.

Eugene and its suburban fringe, like many such areas in the Pacific Coast States, grew quite rapidly as a result of the war impact. A tremendous boom in the lumber and transportation industries increased the population within a six-mile radius from the city center from 30,000 to 50,000 within a period of a few years. Little school construction had been undertaken in the area for the twenty years preceding, with the exception of the development of basement rooms to the point where basement space was no longer available for room development. The result was that the suburban schools in many cases were conducting classes in halls, operating on half-day shifts, holding classes in their basement lunchrooms, and cutting up their gymnasiums

for classroom space. In Eugene, the situation was a little better due to the fact that there were more buildings and some possibilities for shifting boundaries between schools to care for the increased population. Even within the city, however, the saturation point had been reached. Building restrictions imposed

as a result of the war necessity, the scarcity and cost of materials, and bonding restrictions in Oregon Law, which limit a district to a bonded indebtedness of not more than 5 per cent of its assessed valuation, combined to make building virtually impossible for the individual districts.



Buildings in the suburban districts ranged all the way from this two-room typically rural school with two teachers long past retirement age to the modern brick building shown in another picture.

¹Superintendent of Schools, Eugene, Ore.

Differences That Caused Difficulties

In addition to overcrowded conditions and the difficulty of building, the situation was further complicated by the fact that the suburban schools were operating on an eight-grade elementary program, while within the city district the schools were on the six-three-three plan. Eighth-grade graduates from the suburban schools entering junior high school in Eugene in the ninth grade created problems of orientation and adjustment which were repeated a year later when the same pupils went with other ninth graders into the senior high schools. In addition, courses of study and textbooks in the suburban schools were state adoptions, while within the Eugene district local courses of study and local textbook adoptions were in use. It was obvious that the children from the suburban schools would enjoy a better program with greater educational opportunity if they entered junior high school in the seventh grade instead of the ninth and followed a unified course of study.

Many of the suburban buildings were far from desirable as modern school plants. They lacked adequate lunch preparation and eating areas. Their heating and plumbing facilities were poor and in at least one, where a class was held in the basement, the children were forced during some of the heavy rains of the winter months to wear overshoes because of water on the floor. To any reasonable person, it was evident that something must be done to relieve the housing conditions and the need for additional buildings, and to improve the educational program of the schools.

Largely as a result of the activities of County Superintendent Laurence Moffitt of Lane County, and Dr. Henry M. Gunn, city superintendent of Eugene, a combined meeting of the members of boards of directors of the various districts was held in the Eugene High School in the fall of 1944. The problems confronting the schools, both city and suburban, were discussed at length and various proposals were made for their solution. Consolidation was the solution most commonly proposed. It was decided, however, that with-

out specific information on which to act no sound program for consolidation or other solution of the problem was possible. As a result, the combined boards employed Dr. C. L. Huffaker, of the University of Oregon School of Education, to survey the situation and to recommend action. With the help of capable assistants and the complete co-operation of the city and suburban schools, Dr. Huffaker's survey was completed and his recommendations for consolidation of Eugene and the adjacent suburban districts were presented. His recommendations included that of placing the suburban schools on a six-year elementary program similar to that then in operation in the Eugene city schools, the construction of a new junior high school to absorb the seventh and eighth grades from the suburban elementary schools and an overflow from one of the city junior high schools, and the transportation of seventh-, eighth-, and ninth-grade pupils from the suburban districts to the junior high schools.

People Were Informed

When Dr. Huffaker's report was ready, a meeting of the combined boards was again held to receive and study his findings. As a result of this presentation, a meeting was held in each of the affected districts to which all school patrons were invited and at which the results of Dr. Huffaker's survey were presented. A series of nine meetings, one in Eugene and one in each of the eight adjacent districts were scheduled and held, with attendance varying from 25 or 30 people in the smaller districts, to several hundred in larger ones. The benefits and disadvantages of consolidation as recommended by the Huffaker survey were debated vigorously. Districts with high evaluation per pupil or which were less pressed from the standpoint of enrollment than some of the others generally opposed consolidation and adopted an attitude of waiting the matter out to see what might develop. In at least one of the suburban schools where a traditional type of elementary program had been in effect for more than forty years, patrons in the meeting decided not to be a part of a larger consolidated district as it might bring with

it a different type of program than that which they had come to know and like. No pressure was put on anyone by either Dr. Huffaker, the county superintendent, the city superintendent, or members of the Eugene board to sway opinion in the various meetings. The advantages and disadvantages of consolidation were presented by both Dr. Huffaker and Dr. Gunn, the city superintendent, and by a representative of the Eugene board. Every effort was made to see that the people, if they decided to consolidate, should go into the matter with their eyes open. A better educational program for the children with immediate higher taxes but eventual lower costs were stressed.

After the series of meetings had been held and sentiment taken by a straw vote in each meeting, it was decided to hold a consolidation election as provided by Oregon law. Throughout the period from the time the first meeting of the boards until the election, a great amount of publicity was presented on every aspect of the matter by the local newspaper. A special reporter skilled in handling matters of general public concern was assigned to cover the meetings and to handle all publicity. Dr. Huffaker's report was printed, virtually in its entirety; voluminous accounts of the discussions were printed, and every possible effort was made to prepare the people to vote intelligently at the election. At the election in March, 1945, the results showed an overwhelming majority in favor of consolidation with only one of the districts rejecting it. Fortunately, this district was so situated that it did not prevent the consolidation of the other districts as the law provides that only contiguous districts may unite by consolidation.

Junior High Schools Built

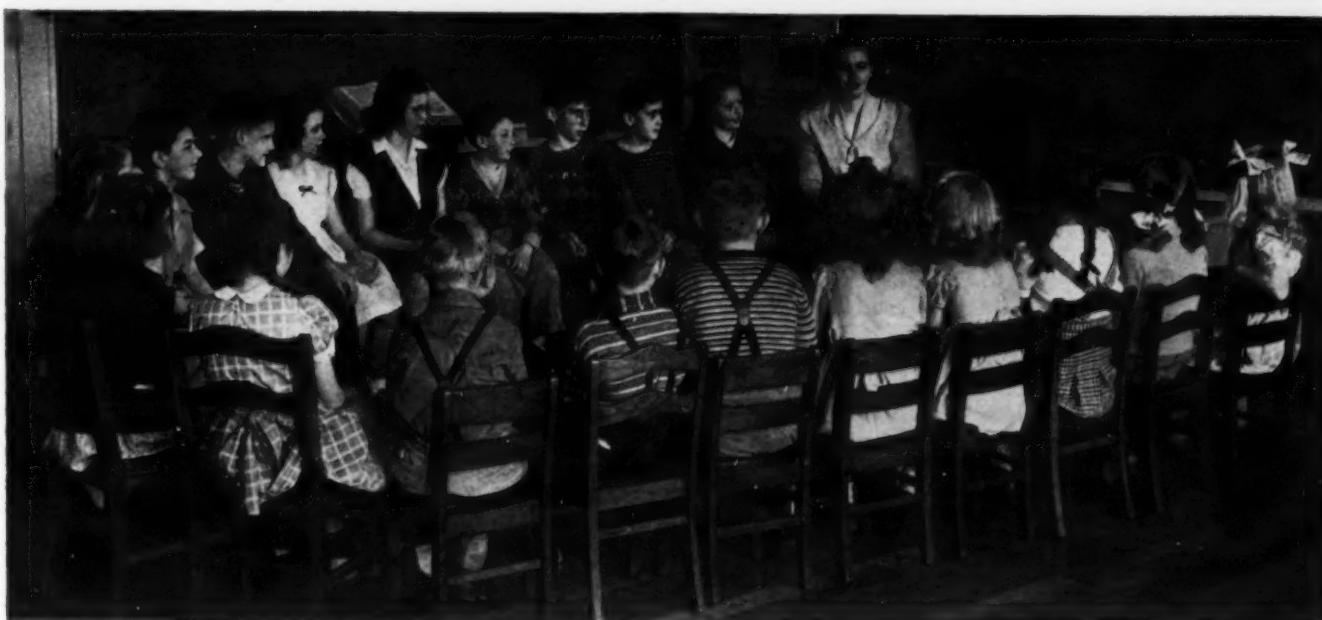
With consolidation effected the Eugene board became the board of the consolidated district as provided by the Oregon Law. The groundwork for the solution of many problems had been laid, but their solution still faced the Eugene board and administration. Arrangements were made to place all of the suburban schools on a six-year elementary program and to build a new junior



Kitchen facilities, improved through consolidation, give sixth grade girls a taste of homemaking activity.



Worthwhile activity units for both boys and girls in the suburban schools are carried on under the new programs.



Audio-visual education, through the radio and the sound film projector, came to the suburban schools as a part of the new program after consolidation.

high school to accommodate the seventh, eighth, and ninth grades from the suburban districts and from one elementary school district in Eugene. Architects were employed to design a modern junior high school plant capable of accommodating five hundred pupils, to be located in one of the suburban districts north of the city. The difficult problem of securing school buses to transport the junior high school student body was begun. Eventually, with the assistance of both senators from Oregon and the members of the House of Representatives from the district, the problem was finally solved, the district was allotted three school buses out of the 1945 quota, and buses were rented from the Portland Traction Company until such a time as new buses could be secured. The new junior high school named by the pupils of the school the Colin P. Kelly Junior High School after the famous American airman killed in the war, started its life on a double-shift basis in the Woodrow Wilson junior high school building in Eugene. It was decided that it would be better for the Kelly student body to attend classes in the morning from eight to twelve and return to their suburban homes for the afternoon, and to have the Wilson junior high student body attend in the afternoon from one to five, remaining at their homes in the city in the morning. This arrangement worked satisfactorily in that about as many school patrons of Colin Kelly complained over having their children go to school in the morning as patrons of Wilson complained over having their children go to school in the afternoon. Construction on the Colin Kelly Junior High School was begun in November, 1945, and the first classes were held on January 27, 1947. Complete with equipment, the building cost in excess of \$400,000, including 13 classrooms, 2 gymnasiums, a cafeteria, an industrial-arts shop, a library, and homemaking

units. It was built at an average cost of \$6.50 per square foot.

Transition Completed

With the opening of the school year in September, 1945, a gradual transition from the state courses of study and state textbooks to the Eugene courses of study and Eugene texts was begun in all of the suburban elementary schools. No attempt was made to force the immediate use of the new courses of study or texts. The matter was approached gradually and a series of in-service training meetings was held for the benefit of the teachers in the newly consolidated districts. Co-operation between teachers and members of the supervisory staff was excellent and the change was made without noticeable disturbance. Teachers in the suburban schools were placed on the Eugene salary schedule, in most cases at figures several hundred dollars higher than they had been receiving, and this factor did a great deal to boost their morale and make them anxious to improve through the in-service training opportunities offered them. By the time of the opening of school in September, 1946, the transition from the previous eight-grade program to the six-grade program had been completed.

Immediately noticeable to the taxpayers of the district was the higher levy made necessary by the building expansion program. A three-year serial levy of approximately five mills was voted to construct the new junior high school. In addition, one entire new school staff for the Colin Kelly Junior High had to be employed, and additional teachers secured for the overload in the elementary schools. Along with this, some portable classrooms were constructed to be used until such a time as prices permitted permanent construction. There was also the usual increase

in teachers' salaries to meet rising cost-of-living costs. The payment of higher salaries made it possible to secure better qualified teachers than had been available for the suburban schools prior to the consolidation. Better teachers, combined with a single instructional program on a 6-3-3 basis, proved advantageous to the children from the suburban area entering the junior high school.

Economic Justification

Consolidation has proved itself in this district from an educational standpoint. Junior high school principals report that the problem of adjustment for children from the suburban schools entering the seventh grade is no greater or different from that of children from the city. No particular problems were encountered in substituting new courses and texts for those previously used. The double shift at the Woodrow Wilson Junior High School, with two student bodies using the same building on half-day shifts, was carried on for a year and a half without any appreciable friction. Except for the fact that the new building could not be completed as rapidly as would have been possible in normal times, there has been little dissatisfaction.

From the economic standpoint, however, consolidation has yet to justify itself. The rapid growth of Eugene and its adjacent suburban areas, with an increase in the school population equivalent to a ten-room elementary building each year for the past three or four years, means that school costs have continued to go up and the tax millage rate has risen to keep pace with it. The answer is not yet in sight. An additional ten teachers each year with increases in operation, equipment, and instructional supplies' costs, to say nothing of the current demand for greatly needed increases in salaries must be met. The

(Concluded on page 66)

Turnover in Large City School Superintendencies

Willard B. Spalding¹

There are 42 cities in the United States which had a population of over 200,000 persons according to the census of 1940. The public school systems in these cities are the largest in the nation and call for continuing leadership of the highest quality. The author was superintendent of schools in Portland, Ore., from March 1, 1944, to July 1, 1947. During that period of time he met twice each year with his fellow superintendents in the large cities. The number of men who died, resigned, retired, or were dismissed during this period of time seemed to be so large that continuing leadership might not exist. As a result of that impression, a questionnaire was prepared and sent to the superintendents of schools in those cities. Forty replies were received. The questionnaire covers the period 1932-47, these years being chosen because they cover the period during which the author was a superintendent of schools.

It was found that only two persons who were superintendents of schools in any one of these cities in 1932 were holding similar positions in 1947, and both of these men are in different cities than the ones which employed them in 1932. During this period of time there were only six men who held positions in more than one of these cities. These facts seem to indicate that there is little advancement within this group of cities for superintendents of schools. This is a reasonable conclusion, since these are the positions of largest responsibility in public education and, with a few exceptions, pay the largest salaries. They represent the top of the ladder.

Eighteen cities employed three superintendents during this period, 17 employed 2 superintendents, and 5 employed 4 superintendents. There was no city in which the person employed in 1932 was still on the job as superintendent when school opened in September of 1947. Table 1 shows the length of term of office of superintendents of schools in these cities. In each instance, the length of term is rounded off to the nearest whole number. Persons who began work in 1947 are treated as having served one year.

In Table 1, the length of term of the individual who was employed on September 1, 1932, is found under the column "list" in each instance. As these men began their periods of service at various dates, the total length of service of all superin-

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TABLE 1. The Length of Term of Service of Superintendents of Schools in 40 Cities Above 200,000 Population (1940 Census) During the Period 1932-47

City	Cities employing 2 superintendents			Cities employing 3 superintendents			Cities employing 4 superintendents		
	1st	Present	City	1st	2nd	Present	1st	2nd	3rd
Atlanta	22	4	Akron	5	8	6	Denver	9	2
Baltimore	20	2	Chicago	7	10	1	New Orleans	18	1
Birmingham	20	6	Cleveland	12	14	1	Oakland	6	5
Boston	15	11	Dallas	15	5	3	Omaha	15	8
Cincinnati	7	11	Dayton	6	10	1	Portland	11	6
Columbus	15	11	Detroit	23	3	3			1
Houston	20	3	Indianapolis	6	7	4			
Jersey City	22	1	Kansas City	11	7				
Los Angeles	8	11	Louisville	5	7	3			
Memphis	13	12	Minneapolis	12	1	4			
Milwaukee	18	5	Newark	11	6	5			
Philadelphia	17	9	New York	9	5	1			
Providence	7	11	Oklahoma City	10	2	4			
Rochester	21	14	Pittsburgh	11	3	3			
San Diego	8	14	St. Louis	10	2	6			
Seattle	13	4	San Antonio	7	8	1			
Syracuse	16	3	Toledo	13	3	11			
			Washington	23	2	2			
Total	262	132	Total	196	103	59*	Total	50	22
Average	15.41	7.76	Average	10.89	5.72	3.28	Average	11.80	4.40
									2.00

*Kansas City omitted as position had not been filled when data were compiled.

tends in any city is usually different from a similar total for any other city.

It will be noted also that those cities which have employed more than two superintendents in this period of time show a shorter average term of office for the person who was employed in 1932 than do those which have employed two persons. The terms of office of present incumbents in cities which have employed more than two superintendents are markedly briefer than in cities which have employed two persons.

TABLE 2. Average Annual Turnover of Superintendents of Schools in 40 Cities Above 200,000 (1940 Census)

Period	Total positions filled	Percent of average annual turnover
1933-37	20	10
1938-42	18	9
1943-47	29	14.5

This table shows clearly that the average turnover during the past five years is about 50 per cent greater than during each of the two five-year periods which preceded it. Since this increase is rather abrupt, it is wise to examine the causes for the termination of employment to see if they give some clue to the increase in turnover.

Inspection of Table 3 shows that there has been a significant change in only two columns. The number of persons retiring in the period 1943-47 is about three times the number in the two preceding

periods, while the number seeking other work in education is about twice what it was in the two earlier periods. Death, retirement, and ill-health are the result of the operation of nature or of pension laws. Seeking other employment or being dismissed may well be assumed to indicate dissatisfaction on the part of either employer or employee. When these situations are combined it is noted that 10 persons terminated work because of dissatisfaction in 1933-37, 8 in 1938-42, and 14 in 1943-47, the number in the latest period being 40 per cent greater than in the first period and 75 per cent greater than in the second one. It would be interesting to discover what has happened during the past five years which has produced such a marked increase in dissatisfaction.

A further examination of the data comparing the reasons for termination of employment with the length of term of office shows significant differences.

TABLE 3. The Causes of the Termination of the Employment of Superintendents of Schools in 40 Cities With a Population Above 200,000 (1940 Census)

Period	Causes for termination					
	Died	Retired	Other work in education	Work outside of education	Dismissed	Ill-health
1933-37	7	2	5	1	4	1
1938-42	5	3	4	0	4	2
1943-47	5	9	8	1	5	1
Totals	17	14	17	2	13	4

TABLE 4. The Average Length of Term of Office of Superintendents of Schools in 40 Cities With a Population Above 200,000 (1940 Census) Who Have Terminated Employment for One of Six Reasons

Reason for termination of employment	Average length of term of office in years
Died while in office	9.89
Retired	13.86
Other work in education	8.05
Other work not in education	7.50
Dismissed	7.31
Ill-health	7.75

The average term of those who died, retired, or resigned because of ill-health was 11.23 years, while that of those whose

work was terminated because of dissatisfaction was 7.74 years. The over-all average was 9.51 years.

Conclusions

1. The rate of turnover in the position of superintendent of schools in 40 cities with a population above 200,000 (1940 census) is high during the past five years.
2. The increase in turnover is caused both by an increase in the number of retirements and in dissatisfaction.
3. The average length of term of office is too brief to give continuing leadership.
4. The number of positions vacated by death, ill-health, and retirement, coupled with the brevity of the term of office,

indicate that either the men who have held these positions have been too old when appointed to give continuing leadership or that, in the case of death and ill-health, the work is too heavy a strain upon the persons who are chosen.

5. Additional research is needed which will discover actual reasons for dissatisfaction by both superintendents and boards of education, the age at which persons are appointed to the position of superintendent in cities above 200,000 population, the optimum length of service of a competent administrator, and the extent to which turnover and brief tenure of office is common to the position of superintendent of schools in cities of smaller population.

Measuring Teacher Load in Secondary School Subjects *Thomas R. Cole¹*

The standard 25 pupils per class, 5 classes daily for teacher load in the secondary schools is in the process of change. Attention is being shifted fortunately to the problems involved in teaching the respective subjects.

A study of teacher load was made recently in two graduate classes in the College of Education at the University of Washington. It was concluded by this group that a true measure of the difficulty of the teaching process in any subject could be determined best by the sum of the relative difficulties of each phase of the total process. The 5 fields of work selected were:

1. Preparation necessary for presenting lesson
2. Collection, care, and arrangement of equipment
3. Presentation and class instruction
4. Evaluation of results of student accomplishment
5. Provision for individual instruction and conferences

¹Professor of School Administration, University of Washington.

TABLE I. The Rank Order of Difficulty of Five Phases of the Teaching Process in Each High School Subject*

	Composition	Literature	Oral expression	World history	Am. hist., civics, econ.	Mathematics	Science	Home economics	Manual arts	Art	Music	Bookkeeping	Typing	Stenography	Foreign language	Total	Av. rank
Preparation	2	5	4	5	5	3	5	5	2	3	2	1	1	3	4	50	3.3
Equipment	1	2	2	2	3	1	4	4	4	4	4	3	3	1	1	37	2.5
Class instruction	4	4	5	4	4	3	3	3	5	5	5	5	5	5	5	67	4.5
Evaluating results	5	3	1	3	2	4	2	2	1	1	1	4	4	4	3	40	2.7
Conferences	3	1	3	1	1	2	1	1	3	2	4	3	2	2	2	31	2.1

*5 represents most difficult phase. 4, 3, 2 represent decreasing difficulty. 1 represents least difficult phase.

5 subjects, and evaluating results in one. The difficulty value assigned to preparation was not related to the teacher's difficulty in learning the subject, but rather to the energy required to plan the work for daily presentation.

Study I

The purpose of Study I was to compare the rank difficulty of each phase of instruction in each high school subject.

Teachers were asked to make the rankings in their own subjects. Judgments of the rank difficulty of each phase of instruction were made by 75 high school teachers in a large city system, 23 students in graduate classes in administration, and several teachers in smaller cities and towns. The teachers were asked to rank each phase of the teaching process in accordance with the best methods.

Table I shows the results of these rankings.

Class instruction is conceded to be the most difficult phase with an average rank of 4.5. Other phases decrease in difficulty in the following order: preparation, 3.3; evaluating results, 2.7; equipment, 2.5; conferences, 2.1. The results indicate that newer methods have not diminished the effort given to class instruction which ranked most difficult, and probably most important, in 9 out of 15 subjects.

Preparation was ranked most difficult in

Study II

The purpose of the second study was to compare the subjects as to relative teaching difficulty.

The 23 graduate students served as raters. Virtually all had a wide range of experience in supervision or teaching. The raters were asked to compare the relative difficulty of teaching each high school subject with the others in each phase of instruction.

Table II shows the results of the second study.

The average rating for each subject decreases in the following order: science, 4.2; home economics and manual arts, 4.0; typing and composition, 3.6; American history, civics, economics, mathematics and arts, 3.4; oral expression, music and bookkeeping, 3.2; literature, foreign language and world history, 3.0; and stenography, 2.6. Science is almost twice as difficult as stenography when classes are of normal size. If the relative difficulty scale in Table II were used to compute teacher load, certain techniques should be used to avoid ambiguous results. Teachers who use the same preparation for two or more classes are not entitled to multiple credit for preparation. Teachers who do not hold individual conferences or who do not help children in their schoolwork before or after school are not entitled to credit under conferences. Adjustment must be made in each phase of instruction for oversized or undersized classes.

TABLE II. The Relative Difficulty of High School Subjects in Each of Five Phases of Instruction*

	Composition	Literature	Oral expression	World history	Amer. hist., civics, econ.	Mathematics	Science	Home economics	Manual arts	Art	Music	Bookkeeping	Typing	Stenography	Foreign language	Total	Av. rating
Preparation	3	4	4	4	5	3	4	4	3	3	3	3	2	2	3	50	3.3
Equipment	1	2	3	3	3	1	5	5	5	4	3	2	3	1	2	43	2.9
Class instruction	5	4	5	4	5	5	5	5	5	5	4	5	4	4	4	70	4.7
Scoring work	5	3	1	2	2	4	4	3	2	2	1	4	5	4	3	45	3.0
Conferences	4	2	3	2	2	4	3	3	5	3	4	3	3	2	3	46	3.1
Total	18	15	16	15	17	17	21	20	20	17	16	16	18	13	15		
Av. rating of subjects....	3.6	3.0	3.2	3.0	3.4	3.4	4.2	4.0	4.0	3.4	3.2	3.2	3.6	2.6	3.0		

*5 indicates greatest difficulty; 4 indicates great difficulty; 3 represents average difficulty; 2 represents less than average difficulty; 1 represents little difficulty.

Conclusions

1. This study assumes typical classes in typical schools.

2. This study makes no attempt to measure services rendered the school by the teacher other than that of instruction.

3. An attempt to use the scales for

measuring teacher load must take into account what the teacher should be doing, as well as what he is doing.

4. Changing methods are placing a different emphasis on each of the five teaching phases.

5. Modern devices for measuring teaching load should assign a relative difficulty value for each phase of the teaching process if valid comparisons in load are to be made.

6. The range of difficulty between classes is exceedingly wide, even though the size of class is kept constant.

7. It is recognized that this study is not sufficiently extensive to be conclusive. The results, however, clearly indicate that the extent of the work connected with teaching a subject should receive greater attention than it has in the past when the teaching load is determined.

Tables in this study were compiled by Eugene Giles, a graduate student.

Stuttering: Its Treatment

Geraldine Garrison¹

For many generations teachers and parents have thought there was nothing they could do to help the stuttering child. Both teacher and parents had always heard that "the child will outgrow it if he is just left alone"; but as the years have passed and the children grew into adults, the teachers and the parents particularly, have realized that most children do not outgrow their stuttering.

Although there have been cases of stuttering on record since before the time of Christ, not very much is known definitely about the cause and the correction of this speech disorder. There are, however, a number of facts known about stuttering which every parent and teacher should know if there is to be a sympathetic understanding of the stuttering child and his many problems.

Types and Onset of Stuttering

There are in the United States over a million and a half child and adult stutters, with four boys to every girl making up the million and a half. The reason for so many more male stutters has never been discovered although a lot of research has been done on the sex phase of stuttering. A person may begin to stutter at any age or any time; however, there are three periods in a person's life when he is most likely to begin: first, when the child begins to talk, the second period is when the child goes to school, while the third is at the beginning of adolescence.

There is nothing that a human being

does in life that requires as much nervous energy and as many finely co-ordinated movements as talking does. So there is little wonder that most children in learning to talk repeat, hesitate, and have some difficulty in speaking fluently. With most children the hesitant, repetitious speech of the child just learning to talk is not stuttering, and in time he learns to use his speech mechanism and fluent speech results. However, there are children who do not acquire smooth speech, and in time they develop stuttering. There are two kinds of stuttering depending on the type of muscular spasm. In true stuttering—the terms blocking, nonfluency, or hesitant speech are also used, but the term stammering is a layman's expression and is not used by speech people—there is a muscular spasm which can be seen by the person accustomed to working with stutters. The spasm may be on the lips, the jaw, the tongue, in the mouth, the pharynx, the larynx, the diaphragm or in various other places. The muscular cramp is just as real as the "Charley horse" or the leg cramp that one sometimes has. The one type of stuttering that all teachers and parents recognize is the clonic spasm type in which the child says *sis-sis-sis-sister*. The tonic spasm type is often overlooked; the child tries and struggles, but the word just will not come out. The teacher often says of this boy, "He doesn't stutter; he just can't get started." This handicap is stuttering just as much as *sis-sis-sis-sister* is stuttering and should be treated accordingly.

While some children do what is com-

monly called *outgrow* their stuttering, most children are not so fortunate. The child so handicapped has one chance in four of *outgrowing* his speech difficulty.

Although the final word on stuttering has not been said, most workers in the field are fairly well agreed that in the main there are two general causes for the blocking: a physical condition or a psychological condition. The onset of some cases of nonfluent speech can be traced to the convalescent period soon after a spell of sickness, and with medication and recommendations from the pediatrician or family physician all traces of the disorder have disappeared within a short time. If the cause for the nonfluent speech is psychological, and if the condition causing the pressure can be located and removed, the stuttering generally clears up immediately. This is what happens when a child *outgrows* his stuttering—the source of pressure is unconsciously removed from the child's environment thus permitting him to make a normal emotional adjustment to his social surroundings. The common belief that there is something wrong with the throat or mouth or lungs which in turn brings on the speech defect is false. That the child thinks faster than he can express himself or that he is so stupid that he cannot express himself is just as erroneous. There is no correlation whatever between mental ability and stuttering; if a large group of stutters is examined, their IQ's will fall on a perfect bell curve on a graph.

The feeling that children do not understand, do not have their feelings hurt as

¹Connecticut State Department of Education, Hartford.

adults do, and are not affected by social relations has passed, and teachers know well from experience and training that children think, feel, are emotionally upset, have their fears and pleasures in much the same way that adults do, and that such experiences have a more lasting effect upon children than upon adults. The teacher who is working with a stutterer must keep ever before her these basic principles of child psychology if she is to help the child.

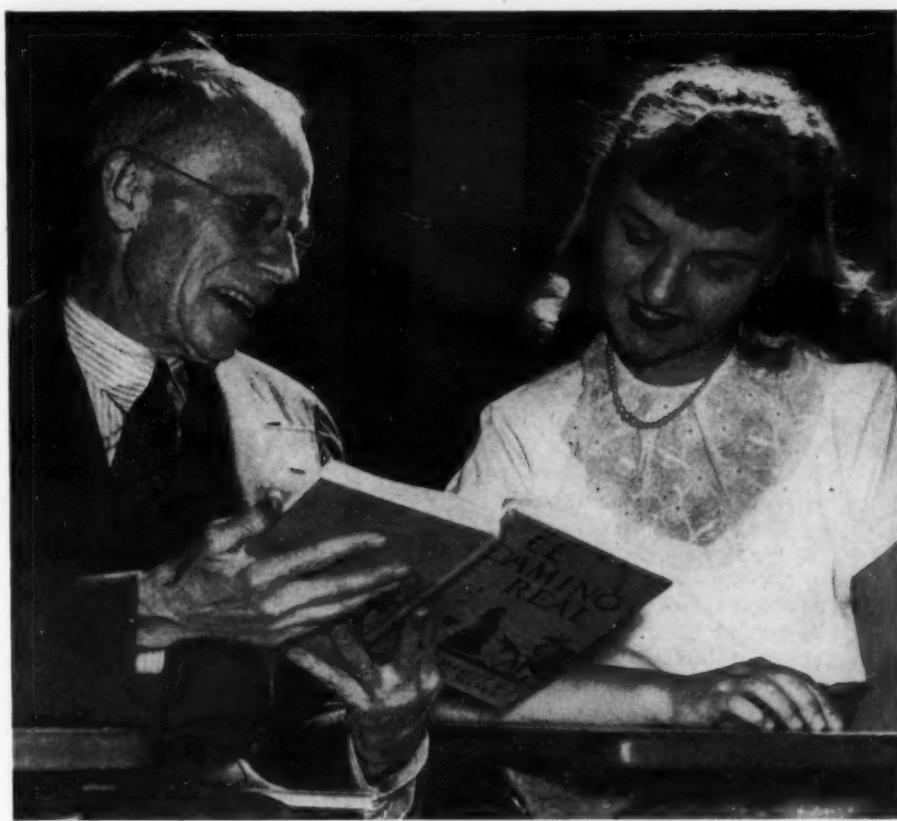
Causes to Watch For

Although there is no one cause known for stuttering — there probably are many causes, as many causes as there are stutterers — there are a few basic causes that every teacher and parent should watch for. The arrival of a new brother or sister may in one child cause him to stop talking completely; while in another child stuttering may result. *Why?* one may ask. The older child has been the center of the home life; he has received all the love and attention not only from his parents but also from his adoring relatives. Then suddenly for no apparent reason all of the love and attention is shifted to the new sibling; and although he senses the changed relationship, his childish mind is not mature enough to think through the situation and make a social adjustment; and thus in his emotional confusion he stutters. The same thing happens often with the death of one of the parents. A broken home, a drunken parent, or a relative living in the home may supply the feeling of *insecurity* or *not belonging*, and thus stuttering results. A domineering or aggressive parent or teacher may cause pressure sufficient to bring on stuttering. Overprotection brings the same results. Human beings are in many ways paradoxical. The child, as well as the adult, must be loved and protected, but at the same time he must be free to develop into an independent person making his own choices and living his own life. If a parent oversolicitous and unknowingly thwarts this growth, stuttering may result in some children.

Comparison with an older brother or sister, or a more promising child, or a prettier child may develop the *insecurity* or the lack of feeling of belonging necessary to initiate stuttering. Often parents and teachers expect the little brother to be just like the older sibling instead of being himself. If it could be remembered that no two people are alike and everyone has his good as well as his undesirable personal characteristics, both the teacher and the pupil would be much happier.

School May Cause Stuttering

When the child goes to school he enters into a completely new life. The teacher becomes the mother substitute, and the child who has had few playmates or interests outside the home may become so confused in his struggle to gain the acceptance of the teacher and the approval of the



President of the Board a Student

H. B. Kirkpatrick (left), president of the school board in Pittsburgh, Pa., discusses a problem with Susan Gillespie, a fellow student in the Spanish class at Schenley Evening School, October 1, which he attends to brush up on the language.

other children that he does not make a social adjustment and stuttering results. Social maturity instead of a certain age might be a better criterion for admitting children to school; or perhaps the experiences gained from a play school or nursery school might well be required of all children entering kindergarten or the first grade.

Sometimes a child begins to stutter after he has been in school a few weeks or even two, three, or more years. When this happens, there should be a careful study of both the child's home life and his school life to find out where the pressure is that is causing the difficulty. Expecting more of a child than he is able to do, expecting him to make all *A's* or to make better grades than he is capable of doing, expecting him to be perfect especially so far as table manners go, or expecting him to be seen and not heard may bring on stuttering. Overstimulation, lack of sufficient rest and sleep, and excitement may be the cause of the undue tension. If a child is excited or frightened by picture shows, he should have other amusements provided for him. It should be remembered that children are individualists and they react differently to different stimuli, and what will cause stuttering in one child will not cause it in another.

While there is no *cure* for stuttering, there are ways of eliminating it. The par-

ents should beware of so-called *stuttering* or *stammering schools* that *guarantee a cure*. There are many very fine schools and clinics where both children and adults may receive help, but on the other hand more harm than good can be done by the wrong methods and procedures. University and college clinics, many medical doctors, state departments of education, and the American Speech Correction Association can recommend reputable clinics where the child or adolescent can be taken for help. Here are a few procedures the school and home can safely follow:

Effective Procedures in Treating Stuttering

1. There should be a thorough physical examination by a medical doctor, and his recommendations should be followed.
2. There should be an examination by a psychiatrist who is accustomed to working with children, and his recommendations should be followed.
3. If the child realizes he stutters, the parents and the teacher should discuss in an objective way his stuttering with him, pointing out that no one is perfect and we take what we have and make the most out of it.
4. Give the stuttering child a lot of genuine affection and companionship.
5. Be kind, sympathetic, and under-

standing; but do not spoil the stuttering child. He must learn to live in a world of people.

6. It is well to give him responsibilities that he can carry out successfully in both speaking and nonspeaking situations.

7. Encourage him but do not force him to recite in class. If he does not recite, hold him responsible for the work by writing out his lessons. Do not let him use his speech handicap as a crutch.

8. Encourage him to participate in group activities so that he experiences the joy that comes from a feeling of belonging.

9. Encourage him to participate, but do not force him, in such group activities as choirs, dramatics, choral speaking groups, Scouts, and student government, etc.

10. Teach the stutterer at least one physical skill at which he can excel—baseball, dancing, skating, swimming, etc.

11. Give the stutterer a lot of sincere praise; he always lacks self-confidence; although he may be boastful and arrogant, he has a feeling of inferiority.

12. Nothing so far has been said about speech therapy. If the child is older, he often can benefit from the work given by a speech therapist, and it is well to consult a person who has been trained to work with stutterers. The speech therapist, because of her training and experience, is often able to locate the condition causing the stuttering, and in this way she can work with the parents and school guiding the indirect therapy of the younger child. In many cases the work of the speech therapist succeeds in eliminating the stuttering where others have failed.

Don'ts for Teachers and Parents

There are a few *don'ts* that all teachers and parents should observe:

1. Never permit other children to imitate or ridicule the stutterer. Although he laughs and pretends not to care, inside it hurts very much; and the taunting makes the stuttering worse. When the stutterer is absent enlist the co-operation of the disturbing children, explaining that their help is needed. Also point out the things which the stutterer can do that they cannot do.

2. Never label a child as a stutterer.

3. Never say, "Now stop and begin all over again." Anything that calls the child's attention to his speech just makes the stuttering worse.

4. Never tell the child to talk slower, but by the teacher's or parent's being calm and relaxed the child unconsciously relaxes and slows down. Most stutterers do not talk any faster than the average person.

5. Never embarrass the child by calling attention to his speech in any way, and his speech defect should never be discussed with anyone in his presence except perhaps the medical doctor or the speech therapist.

6. Never turn away or look off when the child is stuttering. Never stare at him, but treat him as you would a normal person.

7. Never speak for him. No one likes to

have the words taken right out of his mouth every time he speaks.

8. Never forget that the stuttering child is a normal child and an individual, and he must be treated as an individual.

To *ignore* stuttering is dangerous. Both the parents and the teacher should do nothing that will cause the child to focus his attention on his speech. However, both teacher and parents should be alert to try to locate the situation which is causing the undue tension, and they should be on the

lookout for signs of insecurity, maladjustment, or lowered physical vitality. When any of these symptoms appear, the parents, with the co-operation of the school, should seek outside help. It is easier to eliminate a case of stuttering that has existed for one month than it is a case that has persisted for a year. Teachers and parents can do much to help the stuttering child to overcome his speech handicap and make a good social adjustment in the speaking situation if they know what to do.

Modern Sound Systems for Modern Schools

Bernard J. Sullivan¹

The high cost of installation has traditionally been a primary factor in limiting the use of sound systems in schools. Many school managements have been anxious to provide their individual classrooms with voice programs and music from recorded or radio sources, but have been deterred because of the cost of installation.

Only infrequently has the expense of the original equipment kept schools from going ahead with installing a sound system. Many schools have been able to budget to buy sound equipment. They have hesitated to go ahead with their program, however, when they found that installation would cost at least two or three times the value of the equipment alone if the system was to achieve any practical degree of flexibility in terms of offering the teacher a choice of more than one program.

The principle on which wired-sound systems are based has been an inherent difficulty. Wired-sound necessarily requires *at least* one pair of specially shielded wires from the control unit in the principal's office to *each* classroom where a loud-speaker is located. Installation of a pair of wires requires a large amount of work by highly paid labor.

Limitation of Wired-Sound Systems

The installation cost is also excessively high if any degree of flexibility is going to be available in the system. Under wired-sound systems each individual pair of wires carries one program and *no more*. This gives the teacher in the classroom no discriminative choice or initiative in taking advantage of music or voice programs to meet the individual, at-the-moment needs of her particular classroom. The teacher, under a wired system with one pair of wires, is obliged to take whatever program is coming from the control unit at any particular time. The utility and adaptability of the system are obviously limited when this is the case.

The installation of an additional pair of wires will make available one alternative program which the teacher can make use of. But there is a catch to it and the catch again is in the installation cost. The proportion of total outlay going to installation has taken another

substantial increase when this second pair of wires is installed. If any real flexibility is desired, four or five pairs of wires are required and the installation cost is out of all reasonable proportion to what is being spent for original equipment.

The Listening-In Problem

Another disadvantage of the wired-sound system for schools is that it allows "listening in" on the classroom. The teacher cannot tell whether she is really working with her students in privacy or not.

Now, new developments in the electronic field have brought to the schools a new type of sound system which does away with the drawbacks of excessive installation cost and lack of flexibility and privacy inherent in the wired-sound system. A really modern electronic sound system shortly will be available for use in schools. This system was developed during the war and is being built now for navy and veteran hospitals.

The new system—known as the electronic carrier frequency system—achieves a far-reaching, fundamental improvement over the old by virtue of eliminating the use of specially installed wires. The necessity of installing a costly spider web of wires from the control unit to each classroom is done away with.

The Carrier Frequency System

Carrier frequency makes use of existing electric light wiring or other conducting circuits already a part of every school in the United States, so that expenses are limited to the original equipment and the installation of that equipment alone. This new, modern system transmits or carries several programs at the same time, giving the teacher in the classroom a choice of programs hitherto available at only absolutely prohibitive cost. Carrier frequency also gives the teacher complete privacy at all times. It is not only an efficient, but also a courteous system.

In making wired-sound obsolete and outdated, this revolutionary system opens wide new horizons for the use of sound in our schools. Sound systems will be within the reach of a vastly larger number of schools—systems that reflect in cost and performance the latest in electronic developments.

¹General Manager, Electronic Sound Engineering Co.

For Happy and Healthy Children —

Recreation a Co-operative Enterprise in Long Beach

Eager little tots molding a castle of sand, red-blooded youngsters breaking into the open for substantial gains in a game of touch football, and teen-agers dancing to juke box music at a community club social are all reaping dividends from the recreation program in Long Beach, Calif., sponsored jointly by the public schools and the city.

Attendance at these jointly sponsored year-round recreation activities passed the 2,000,000 mark in 1945 and 1946. Local citizens, however, count the dividends not in numbers in attendance, but in healthier, happier boys and girls and the keeping of juvenile delinquency to a minimum in this city which almost doubled in population between 1936 and 1946.

Directing this co-ordinated program is the Recreation Commission composed of the city manager, a member of the city council, the superintendent of schools, a member of the board of education, and five citizens who have no official connection with either the schools or the city government. The director of the commission is also the supervisor of physical education for the schools.

Joint action by the city and the schools at the top, however, is only part of the picture. The schools and the city co-operate in financing the activities, in manning the playgrounds with trained leaders, and in bringing news of the opportunities offered by the program to every home in the city which has school age youth.

Afterschool recreation, for example, has become increasingly important in recent years as the number of mothers who are employed outside the home shows a sharp rise over, for example, five years ago. During the school year 1946-47 there are 53 supervised play areas open in the city from the close of school each day until 4:30 p.m. Thirty-eight of these 53 afterschool play areas are operated in the elementary and junior high schools of the



Folk Dancing is enjoyed by Young and Old.

board of education and the remaining 15 are operated by the city. More complete coverage of all populated areas within the city is thus assured. The smaller youngsters spend their time going down the slides, swinging on the traveling rings, exercising on the horizontal bars, or, possibly, just playing in the sandboxes. The older youngsters play touch football, soccer, speedball, softball, and any one

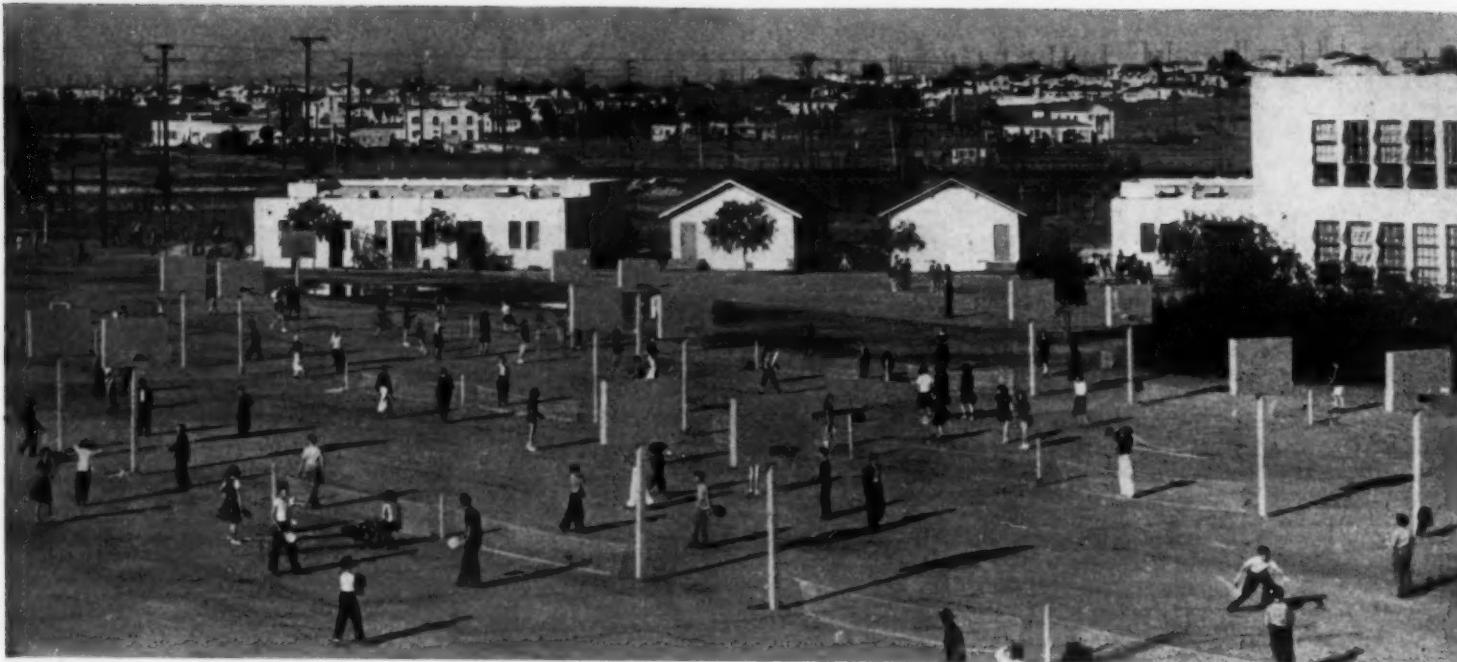
of a dozen competitive games that have special appeal to the early adolescent. Present at all times is a trained playground director paid by the schools on the school playgrounds and by the city on the municipal playgrounds.

The program does not stop during holidays. The schools and the city will maintain 39 all-day play areas during the Thanksgiving, Christmas, and spring vacation periods.

Saturdays are big days for junior high school boys who have reached the age where competition in seasonal sports has a special appeal. Throughout the entire school year the Commission, with the assistance of the schools conducts sports tournaments and game competitions each Saturday morning. The board of education provides half of the supervision and supplies for these events. Most of the publicizing and promoting of these activities is done through the schools. Last year the attention was on touch football with 30 different teams competing from all sections of the city. The teams were divided into the American League and the National League with the league winners playing off for the championship. A casual glance at the names of the competing teams gives some idea of the youthful enthusiasm the junior high school lads put into these contests. Names selected by the players on their teams include The Odd Balls, The Bears, The Gashouse Gang, The Midgets, The Sky Hawks, The Foxes, The Tigers, The Kilroys, The Galloping Ghosts, The Bearcats, The Gremlins, The Merry Macs, and a host of other names which have a special attrac-



The Sand Box has Eternal Attractions.



The Tennis Courts attract more young people than can be accommodated.

tion to adolescents. A tournament in which passing and kicking contests were featured closed the football season. Then the youth turned their attention to basketball, next track and field competition, later softball, and finally baseball in the spring.

Closely related to these activities have been the so-called "Teen Clubs" for both high school and junior high school boys and girls which have been encouraged and supported to some extent financially by the schools. The Hi-Teen Canteen, The Fo'c'sle Canteen Club, The Haymakers Canteen Club, The Teen Tavern, and The Hutch are a few of the local organizations which have provided wholesome recreation under adult supervision.

Development of future recreation leaders is an important by-product of the co-ordinated recreation program. Pupils who are majoring in physical education at the Long Beach City College and many high school pupils looking forward to such major work are employed as junior play leaders for the recreation program. In this way many of the present senior lead-

ers in the program have been recruited and developed.

Still another form of co-operative effort is through the sharing of recreational facilities. In general, after the immediate needs of schools are served, the Recreation Commission has first priority on the use of buildings, grounds, and equipment for recreational purposes. Schools generally stand the maintenance costs in these instances while the city pays for the supervision of the activities. Facilities of the school system used in the Recreation Commission program include gymnasiums, locker and shower rooms, gardens, woodshops, auditoriums, and bungalows, as well as playgrounds with approximately 2,500,000 square feet of paved surface.

Most important, of course, is the fact that the co-ordinated plan involving joint participation by the city and the schools is successful. It has been largely responsible for the maintenance of a well-rounded, all-inclusive program to meet the recreational needs of youth in a rapidly growing city. Development of

strong, alert, responsible junior citizens is the reward of co-ordinated school-city sponsored recreation.

OUR IMMEDIATE JOB

The international and national conferences of UNESCO are wandering so far afield in their discussions of the promotion of education for peace, that the direct influence of the programs are extremely remote for American schools. Here in the United States the schools must carry on their own initiative and in the light of our own institutions. The importance of prompt action in this field is brought forward by Gabriel R. Manalac, director of the National Council on Education of the Philippine Republic. In addressing the Philippine Association of Colleges and Universities in July, 1947, he said:

"If it is true that it is in the minds of men that the defenses of peace must be built, then the schools and all other educational agencies and institutions, including the home and the church, are faced with the greatest, the most serious, and the heaviest responsibilities. There are no more fertile minds in which to sow the seeds of peace than those of little children, of boys and girls, and of young men and young women. The elementary schools, the high schools, the colleges, and the universities all over the world have the joint responsibility of instilling in the minds and hearts of the children and the youth of peace, respect for the dignity of the individual, and a feeling of brotherhood for all mankind. The schools and colleges in all countries should pool their efforts in training men and women, so that they would realize that war, with all the sorrow, the unhappiness, and the misery that it engenders, really settles nothing; that war as an instrument of peace has been an utter failure from time immemorial; and that war can only breed war and more wars — each war more brutal, more deadly, and more savage than the one before."



Touch Football can be played in any old clothes.

School Nursing in a Federal Housing Project

Inez Thompson Winget, P.H.N.¹

One of the best ways to reach the public with health education is through the medium of the elementary school. In the rapidly growing years of the elementary school child, numerous health fundamentals are either present or absent. Since the health status of the child reflects home conditions and the relative ability of the parents to teach good health habits, the school is the place in which to offer some practical health education both to children and adults.

That is exactly what is being done in Plainview, Kans., a town which grew upon the wheat fields of Wichita, home of the B-29 superfortress. Because a federal housing project domiciles such a variety of inhabitants, the population provides a veritable cross section of the health of the nation. Plainview, originally a war housing project but recently designated for veterans' families, maintains a census of approximately 13,000 individuals. Its three elementary schools, high school, and four nursery schools grew out of the needs of the community. Frank K. Reid, former superintendent of schools, recognizing the importance of health education in everyday living, recommended to the school board the employment of four school nurses. Each nurse works independently in her own school or schools, but in unison with local educators, health authorities, and a state health education co-ordinator.

Since the effectiveness of the program of a school nursing service is, to a great extent, determined by the nurse, it is the responsibility of the administrator to employ nurses measuring up to a high standard of general education, professional preparation and experience, and personal qualifications. The greater the experience of the nurse with the child and the family, the greater the understanding she may exercise in her capacity as school nurse. Assuming that she has the necessary preparation, experience, and personal qualifications, her success depends largely upon her active participation in health conferences, alertness to current progress in health measures, and a genuine love for her work.

School Nurse Functions

In so far as possible, the nurse functions in the school health program, and follows policies as adopted by the National Organization for Public Health Nursing. Those functions, in brief, are:

1. The nurse assists the teacher in encouraging the pupils through classroom activities to acquire the knowledge necessary to the establishment of healthful practices and attitudes.

2. The nurse acquaints parents, teachers, and pupils with the indications of good health. She helps them to develop an ability to recognize deviations from the normal, and to direct their behavior accordingly.

¹Formerly School Nurse, Plainview, Kans.

3. The nurse promotes the maintenance of a safe and healthful environment in the school, home, and community.

4. The nurse teaches the value of adequate health supervision, which includes the selection and consultation of a family physician and dentist.

5. The nurse acquaints parents, teachers, and pupils with community facilities for medical care and aids in the development of such facilities.

6. The nurse assists in securing physical examinations of pupils, having the responsibility assumed by the family when possible. She arranges for and assists with the examinations of pupils at school.

7. The nurse interprets the findings of the health examination by the school physician or private physician to the teachers, parents, and pupils, and when necessary assists parents in arranging for the correction of defects.

8. The nurse participates in a program for the prevention, care, and education of handicapped children as a contribution to their physical, emotional, and social development.

9. The nurse assists in the control of communicable diseases.

10. The nurse assists the physician and the administrator to set up procedures for the care of injuries and utilizes the procedures for teaching the parent, teacher, and pupil the reasons for such care and for accident prevention.

11. The nurse who is qualified to teach may conduct classes in the principles of healthful living, care of the sick, and child care.

12. The nurse participates in curriculum-making.²

A certain amount of equipment, of course, is necessary as well as instruction as to its use. One of the most important is a first-aid box, adequately equipped, in each classroom. This requires that the nurse give demonstration of its use, and tell the reasons for using it. From that time all minor first aid is handled by committees of children under the supervision of the teacher. This experience furnishes a good basis on which to expound the germ theory. In addition, the use of the tongue blade and the thermometer is taught. Supplies are checked each month and replenished by the nurse. A box of paper tissues is also kept in each classroom to cover coughs, sneezes, and coryza.

Work Done by the Nurse

Early in the school term the height and the weight of every pupil, without shoes and heavy clothing, is taken. These data are recorded on growth records and kept posted in the respective rooms. All weights in extreme, for height and age, are circled in red indicating danger signs. These figures are also posted on the individual health records. Weights are taken and recorded every six weeks.

Early in the year drinking fountain habits are taught. From kindergarten, children are drilled as to which is the clean part of the fountain and which the most likely to be con-

taminated. Practice includes the child's placing his left hand behind him, turning the water on with his right hand, and placing his mouth just as far from the nozzle as possible to secure a drink. This procedure needs to be emphasized continually.

Equally important is hand-washing drill. The child is taught to wash immediately before eating and after using the toilet; he is also instructed why this is necessary. Briefly, the nature of that instruction includes the following facts: tiny bacteria, so small they cannot be seen with the naked eye, are in the air and upon all the things he touches. There are helpful bacteria and harmful bacteria, but it is the harmful bacteria that human beings have to fear and against which take precaution; these germs enter the body through the skin and all the mucous membranes, including eyes, ears, nose, and mouth. The germs grow best in the body because of warmth, moisture, and absence of light, and they grow very fast; they multiply by unicellular action—one tiny germ divides and makes two, two divide and make four, etc., until there are so many the body cannot overcome them. It then succumbs to "catching" diseases, such as colds, sore throat, pneumonia, measles, mumps, scarlet fever, or tuberculosis; therefore, it behooves all to keep the hands very clean, not to eat or drink with dishes and cutlery which has been touched, to cover coughs and sneezes, and to keep hands and objects away from mouth, nose, eyes, ears—all body orifices.

Teaching Good Food Habits

Since good food and well-balanced meals are also essential for resisting disease, many lessons can be taught in this field. Notebooks about food, posters, play at a classroom grocery store, food models chosen by children to make balanced meals—all are helpful in studies of nutrition. White rat feeding experiments afford excellent examples of food values. One rat is fed a poor breakfast of coffee, candy, coca cola, and sweet roll; the other is fed milk, egg, cereal, fruit, and bread. The difference in gram weight at the end of six weeks speaks greater volumes in everyday living than scores of reading lessons on health. The rat experiment can be handled nicely beginning in the fourth grade.

Teachers learn, by doing, the essentials in morning inspections. The pupil loosens his collar, rolls up his sleeves, and presents the backs of his hands with the fingers spread apart. The teacher observes for rash or skin lesions on hands and arms. Ears, necks, faces, and hair are inspected for cleanliness, lesions, rash, flushing, or pediculosis (head lice). If a child is found with repeated odor of unclean clothing or with dirty neck and ears, he is sent to the nurse for a special lesson in personal hygiene. Having to wash in cold water once

²Manual of Public Health Nursing, Third Ed., prepared by the National Organization of Public Health Nursing, Member of the National Health Council.

or twice, he returns to school cleaner and more tidy. Toothpicks are kept handy for nail cleaning. If sores are evident, the pupil is sent to the nurse for further instructions.

Ethically, the nurse neither makes a diagnosis nor prescribes, but she can give standing orders from the county medical society for impetigo, scabies (itch) and pediculosis. A child contracting pediculosis is excluded for an initial treatment. Upon return to school, he is requested to continue daily treatment and wear a scarf over the hair until entirely free from nits. Follow-up with daily inspection is made by the nurse until she considers the child eligible for release.

All suspected communicable diseases are referred to the municipal or county public health department. The city, or county, health nurse makes a home call on the suspected case, instructs the family in care, places a quarantine upon advice from the physician, and at the proper time grants a release from quarantine for return to school.

Control of Physical Difficulties

By requesting a written excuse from home for return to school after absence, the teacher, principal, and nurse are kept aware of possible physical difficulties. All excuses for physical reasons are forwarded to the nurse who appraises them.

In some instances a special conference is held with the child to determine more fully the nature of his ailment. In significant cases the parent is called for conference. Through this routine, pupils and parents are made aware of major and minor physical and mental problems affecting the health of the child.

Parents are directed through the proper channels for aid and correction of health defects. These channels include the family physician, medical specialists, child health clinics for preschool children, a logopedics department for speech correction, the family consultation service, the department of public welfare, the county dental clinic, the state crippled children's service, and the medical service bureau. The nurse guides the family to reputable physicians by furnishing a list of them, or reference to the physicians' exchange.

Specifically, one child was directed to a physician, immediately following gastro-intestinal symptoms for which the mother had administered a purgative as a home remedy. The child was taken to a hospital where a diagnosis revealed a ruptured appendix. With operative and penicillin treatment she recovered within a few weeks. Again, with pressure brought to bear upon the father of a motherless boy in second level, a diagnosis of anemia and rheumatic chorea was made by a physician. The child was kept out of school for several months under treatment, and heart involvement was thus avoided. Another child in second level was not doing well in school. An auditory test was made crudely, because as yet we have no facility for making accurate auditory tests. Her hearing seemed very much impaired. She was referred to an ear, nose, and throat specialist who found upon examination very large infected tonsils. He recom-

mended their removal in order that the condition might have an opportunity to clear up.

Home visits are made occasionally by the nurse, as urgency and time permit. The summer provides an opportune time for making these home contacts. Meeting the parents in the home often produces results which could not be obtained in the school. They are more at ease in their own surroundings and often confide in the nurse, giving information significant to a child's school progress. Care must be exercised in home visitation lest the nurse become an attendance officer.

Examinations of Eyes and Teeth

Routine vision screening is done as early in the school year as possible by both the nurse and the classroom teacher. It is essential that the test be made in the environment of the child's daily work. The symbol E chart is used as recommended by the National Society for the Prevention of Blindness. The accuracy and significance of the test are much more effective as a result of teacher-nurse co-operation. A follow-up letter is sent the parent with recommendation that a further test be made by a reputable medical eye specialist. A request is made by the school for a report of findings. Proper adjustment of shades and placing of seats are stressed for the most effective classroom lighting. Experimentation with diagonal seating has revealed some very satisfactory results.

Dental inspections are made once a year by a dentist from the county health department. Records of findings are made and transferred to the regular health files. Data on each pupil is sent home to the parent. A signed slip is requested from his dentist after dental corrections have been finished. Appointments with the county dental clinic are made for children from low-income families.

Opportunity for immunizations against diphtheria and smallpox is given once during the year by the county health department. Signed permissions from parents are requested before immunizations are done.

Tuberculin testing is also offered once during the year by the department of public health. Signed permissions from a parent are also recognized. Follow-up chest X-rays are made on positive tuberculin tests either through the aid of the family physician, a specialist, or the medical service bureau.

Miscellaneous Duties of Nurse

Posture drills are encouraged in all classrooms. Many children have poor posture due to a poor nutritional background; others, to poor posture habits. In either case, every effort is made to bring about correction.

Health movies precede many of the special drives, such as immunization, and are shown practically every week throughout the year to all grade levels.

The nurse inspects buildings for sanitation and observes classroom conditions.

When pupils are seen practicing poor health habits, they are quietly corrected and tested as to their understanding of why correction is necessary. The nurse further notes health

projects in the various classrooms and urges more nurse-teacher-pupil co-operation in everyday life.

Weight, height, dental findings, vision findings, immunizations, tuberculin test findings, and various other data of consequence are recorded on the individual pupil health record kept on file in the nurse's quarters for future reference. This, in itself, is a huge clerical task. A few mothers have volunteered to help with this clerical work on different afternoons each week. This assistance is much needed and appreciated. Through the experience the mothers, too, pick up helpful suggestions regarding their own family's health. A current library of pamphlets on timely health problems is kept on file for distribution as needed by the various families in the community.

A mother's health study club holds monthly meetings throughout the school year. A committee plans the program for the year and presents it in booklet form for distribution. Visual aids have been instrumental in making these programs a success. Among the subjects studied have been mental hygiene, health screening in the school, nutrition, cancer, and home care of communicable disease. Interest in organization of Red Cross Home Nursing classes has grown out of these mother's health club activities.

The duties of the school nurse are many and varied. No phase of nursing service presents a greater challenge, because the major effort is directed toward prevention of disease. As very few schools, up to this time, have provided the services of a full-time nurse in each building, it is essential that the school nurse's duties be clearly defined and the success of her work carefully evaluated.

Result of Program

Measurable results from the application of a better school health program cannot be expected over night, but conscientious pursuit must inevitably be reflected in happier, healthier lives for thousands of human beings. The success of health education in this Planeview community suggests the possibilities of similar education in every locality. If such a health plan is workable and successful in a federal housing project, how much more could it be in stable communities! Parents would feel much more secure about their children, knowing that there is a trained, watchful eye caring for them at school. They would cease to complain about the increased tax levy for adding a public health nurse to their school staff, knowing that their children are being trained to avoid the physical pitfalls to which their generation has been subjected by lack of preventive medical knowledge. Knowing that 50 per cent of our young men were rejected for military service in World War II because of physical disabilities, this practical plan of improving the health status of our nation is not too much to ask our citizens to share for our health future. A healthier America waits upon and depends upon the universal adoption of sound school health policies.

Many school administrators visit the Plane-

(Concluded on page 66)

A Common Responsibility —

Who Should Plan Schools for Safety?

Charles Bursch¹

"If you want anything done well, do it yourself," says an old bromide that should have passed with many another of its banal contemporaries. I heard a more recent version which goes this way, "If you want anything done well, get someone who knows how to do it."

In this complex world of today perhaps someone should formulate a postwar version which might take this form: If anything is to be done well, someone must assume responsibility for collecting, integrating, and incorporating potential contributions from all competent persons and sources of information.

The planning of school buildings has gone through these stages. In the *do-it-yourself* stage a board member was designated to take over the building program. The resulting buildings were often anything but satisfactory. Architects had a field day during the *get-someone-who-knows* stage. Monumental public buildings, euphoniously called "schools" were the result. The design of school plants as educational instruments has had to wait upon educational administrators who, as representatives of governing boards of school districts, became competent and willing to *collect, integrate, and have incorporated* ideas and requirements from all potential sources.

Who should plan school buildings? The responsibility for the outcome of planning a safe school building cannot and should not be shifted from the shoulders of the chief administrative officer of the school district. What we are really concerned with at this time, however, is upon whom should the school superintendent call for assistance in the discharge of his responsibility. It is obvious to most of us that the services of an architect are required. Also will be required the services of a structural engineer and of specialty engineers — particularly including mechanical, acoustical, lighting, safety, landscape, and civil engineers.

Several agencies not ordinarily included in schoolhouse planning procedures have substantial potential contributions to make to planning for safety in any type of structure. Among these should be included:

1. National and local safety councils
2. American Standards Association
3. National Fire Protective Association
4. National Council on Schoolhouse Construction
5. National Board of Underwriters and State Interscholastic Federation Protection groups
6. State and local fire marshals

¹Chief, Division of Schoolhouse Planning, California Department of Education, Sacramento, Calif. Paper read before the National Safety Congress and Exposition, Chicago, Ill., Oct. 7, 1947.

7. Industrial accident commissions
8. State and local health departments
9. Regional and local planning commissions

School Staff Held Valuable

The end is not yet in answering the question who should plan schools for safety? Perhaps the most significant recent trend in planning school buildings is school staff participation. Improving the safety of school plants can be substantially accelerated by the intelligent use of the ideas of certain school employees. But who? Certainly, the employees having jurisdiction over the areas and facilities where the school accidents occur. The accident facts point unwavering fingers at the building principal, the physical education and recreation staff, the custodian, the shop and homemaking instructors. The school nurse or teacher responsible for giving first aid to injured students would obviously have some pertinent comment on planning school plants for safety.

It should be emphasized here that the above-mentioned school personnel are not here charged with responsibility for the accidents, but are selected as those best informed on the physical conditions surrounding accidents. The school accidents caused or contributed to by inappropriate plant facilities are chargeable to those responsible for *planning and financing* the schools and not to those employed to operate a program with the inadequate facilities.

The planning of school plants for safety should not be limited to making school premises safe. Perhaps of even more long term importance is the planning of school plants so that general safety education may be done effectively. With proper spaces and equipment the school may teach auto-driver and highway safety, home safety, vacation safety, and industrial or vacational safety.

Physical Conditions Related to Safety

The question "Who should plan for safety?" may well be further clarified if brief consideration is given to the physical conditions in the school plant which are related to safety. What facilities, if properly planned or provided, will tend to reduce the number and severity of school accidents with any given staff and safety program?

1. *The location of school sites.* The safety aspects of school plant location are important and numerous. The relation of a site to highways and streets, railroads, airports, blind street corners, hills, ravines, and streams all have distinct safety implications. While it is true that proportionately few new school sites are selected

each year, the significance for safety should be fully realized. On the basis of safety alone many practices controlling site selection in the past should be abandoned. I refer to the influence of interested realtors, Chambers of Commerce, arbitrary decisions by uninformed board members, etc. School sites selected on presently available technical criteria are a much better safety risk than most school sites now in use.

2. *Sizes and shapes of sites and building spaces.* Accident facts show that a disproportionate number of accidents occur on playgrounds and especially on "unorganized playgrounds." The most hazardous school situation observed by the writer was one made so because of inadequate play area. The sizes and shapes of sites and building spaces should be determined not on a per pupil basis but on the basis of a layout of service areas, allowing ample space for the activities as well as safety areas between activities. This is true of the playground, of the schoolroom, the shop, the science and homemaking laboratories.

3. *Playground and floor surfaces.* The selection, treatment, and maintenance of playground and building floor surfaces have a direct bearing on safety. Planning, which is the subject of this discussion, has more to do with the selection of proper surfaces rather than their maintenance. However, it is of supreme importance that the type and material of surface selected be one that is safe and can be maintained for safe use.

4. *Obstructions.* Even though year after year many accidents occur by pupils running into unnecessary and indefensibly located obstructions these continue to exist. I know, as you do, of many situations where "tree lovers" would have so frightened the school board that a hazardous tree could not be removed from the playground. The simple requirement of smooth wall surfaces in playrooms and gymnasiums is ignored more often than met.

Importance of Direct Plans

5. *Pupil circulation.* Inadequate and poorly planned means of circulation (entrances and exits, stairs) cause too many mishaps. Straight corridors of ample width and properly designed stairs all make substantial contributions to safety. Tendencies toward planning school buildings of simpler shapes and of providing such facilities as controlled busports are steps in the direction of improved safety as it relates to pupil circulation.

6. *Lighting.* School lighting contributes to safety in at least two distinct ways: (1) By proper lighting the strain to pupils'

eyes is reduced. (2) Adequate and well-designed lighting also makes a major direct contribution to safety. Special lighting of stairs, corridors, entrances, outdoor walks and parking areas, dangerous shop and homemaking equipment are cases in point.

7. Equipment. The selection, arrangement, and proper installation of equipment can make a major contribution to safety. Such matters are highly technical in nature and should be determined by such competent persons as safety engineers, staff members of an industrial accident commission, insurance agents, etc. The most outstanding memory of the writer in this connection was a knockout blow because of the lack of safety gadget known as a fire escape. The bottom portion of the fire escape was about 5 ft. 6 in. above the ground and close to the corner of a building.

8. Storage. The relation of adequate, convenient, and appropriate storage to safety is very close. Unstored or improperly stored physical-education apparatus represents one of the major causes of accidents. Another relation of improper storage to accidents is the frequent cause of school fires originating in improperly designed storerooms. Storage for auditorium stages is important to safety. In many situations the awkward relationship of such storage to the stage floor level actually is responsible for accidents.

Power Plant and Electric Hazards

9. Heating plants. The general public is perhaps more aware of the potential hazards of heating plants than any other part of a building, and for this reason attention is given to the safe location and construction of boiler and fuel storage areas. Even so, too many heating and ventilating installations of school buildings are left to incompetent persons.

10. Electrical wiring installations. Here, as in the case of heating and ventilating, there is general recognition of the hazards involved. However, it is equally true that this type of installation with all its importance to safety is left to incompetent hands.

11. Acoustics. The relationship of acoustical treatment to accidents, so far as I know, has not been definitely established. However, in observing the action of students in gymnasiums, shops, laboratories, and other areas that are not acoustically treated, it is easy to conclude that the disorder and obvious tensions as well as the inability of the supervisor to function properly are causes of an increased number of accidents.

12. Structural adequacy. Of basic importance to the safety of all occupants of a school building is its structural adequacy. While in the past very large school buildings have had the benefit of design for structural adequacy by competent structural engineers, most of the medium-sized and smaller buildings have been designed

and are now being designed by architects with a limited knowledge of structural design. The occurrence of earthquakes, tornadoes, floods, tidal waves, and uneven and excessive settlement of building foundations all point to the importance of structural adequacy for all buildings.

Insuring Structural Safety

The 1946 *Guide for Planning School Plants* by the National Council on Schoolhouse Construction has the following suggestions for providing some control in this important field:

Whether an architect does the structural design himself or employs a structural engineer, the plans and specifications should include:

- a) Results of tests of bearing value of the soil under foundations
- b) Schedule of live loads computed for the various rooms in the building
- c) Design computations and diagrams for the important structural members in the building
- d) The magnitude of the lateral force (wind and earthquake) the building is designed to resist

The provision of competent continuous inspection throughout the construction period is necessary if structural adequacy is to be achieved.

Any on-the-project agreements between school officials and the builder and any order by school officials to the builder not documented by the architect or engineer should be considered serious offenses. By no other means can responsibility be fixed in the highly technical and important matter of structural adequacy of school buildings.

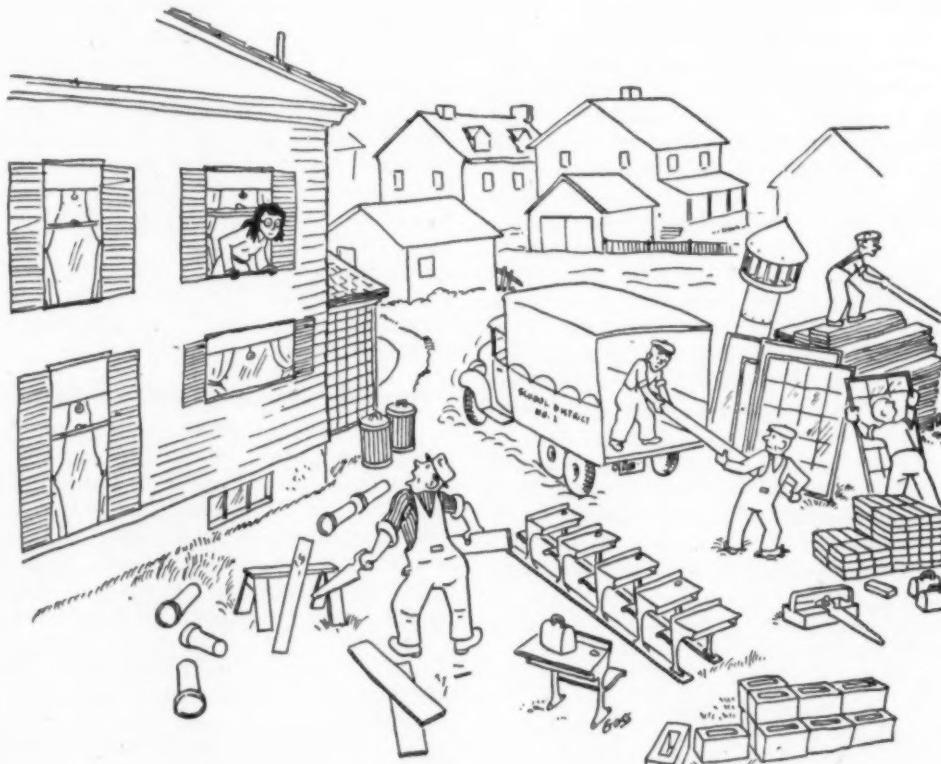
13. First aid facilities. While the provision in a school plant for first aid facilities may not reduce the number of accidents, it may be expected to reduce the severity of the results of accidents, and should not

be overlooked in planning a school building for safety.

Safety Protection Means Much

Analysts of the school plant sometimes list "protection" as one of its functions. This concept all too often I fear is limited by school building designers to protection from cold, rain, sun, and moderate winds. Protection *can* and *should* mean much more. How much more it actually will mean depends upon the range of competent persons consulted, the soundness and comprehensiveness of the planning and construction procedure followed, and the interest, integrity, and administrative competence of the chief executive officer of the school district.

May I, even at the cost of dull repetition, list again some of the kinds of persons whose co-ordinated assistance is essential to the provision, planning, and construction of safer school plants: architects; structural, mechanical, illumination, acoustical, civil, landscape, safety engineers; school employees, such as physical education and recreation, shop, homemaking, science instructors and custodians; planning consultants; staff members from national and local safety councils; American Standards Association, National Fire Protective Association, National Council on Schoolhouse Construction, National Board of Underwriters and State Interscholastic Federation Protection groups, state and local fire marshals, Industrial Accident Commissions, state and local health departments, regional and local planning commissions.



"Yes, Ma'm! It's going to be a school building . . . Someone in there asked to be placed near her home." — Seattle Schools Bulletin.



Front elevation of classroom units, Palm Springs Union High School, Palm Springs, California, showing rambling nature of classroom wings around quadrangle. Corridors are in the open and are lined on inner side with student lockers.

Palm Springs Builds a Secondary School Plant to Fit the Desert *Ernest E. Oertel*

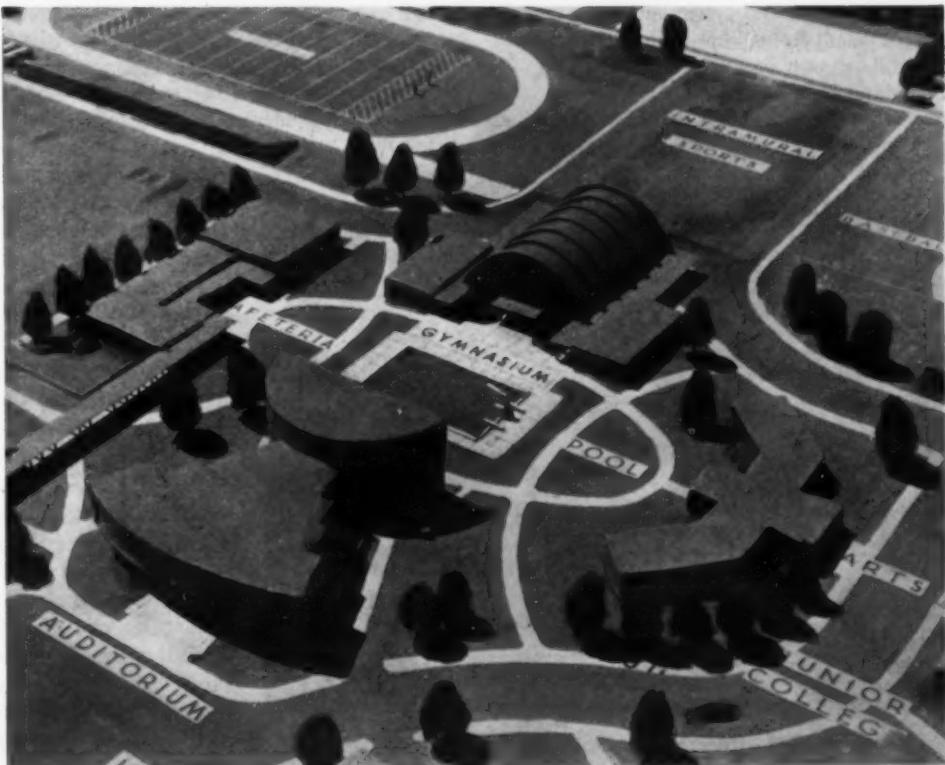
A secondary school plant designed to serve students living for the most part in the open air and sunshine of the desert is in the making at Palm Springs, Calif. The city and the country surrounding Palm Springs has an uncommonly high degree of color and atmosphere, and the schools, the governing board believes, should reflect as faithfully as possible the mode of living of the popular desert resort.

The secondary school campus has 35 acres. There are no two-story buildings, and the architecture is predominantly Spanish. The lawns in courts and patios are leveled off at four or five inches below sidewalk surfaces and are inundated when irrigated. Buildings are constructed with a view to resisting heat, not cold. A central heating plant using natural gas furnishes heat during part of the winter season, but usually for only a few hours in the morning. Water evaporation coolers are used in May and September.

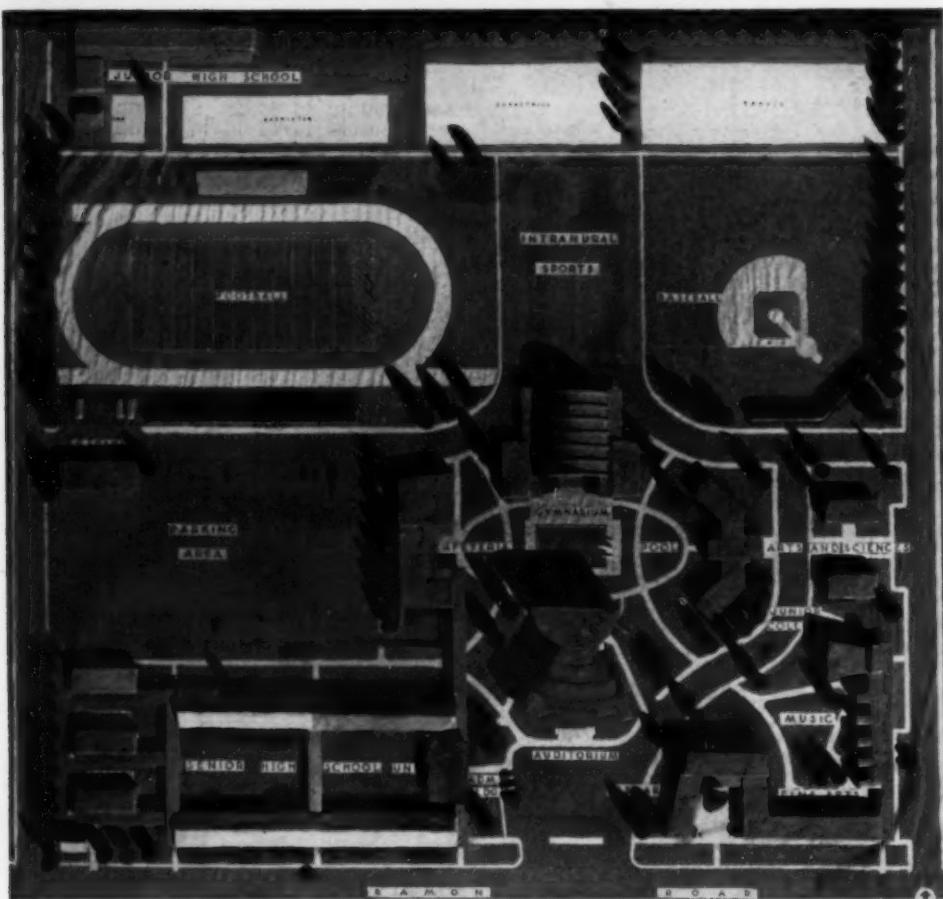
Palm Springs High School is a young school attempting to serve a rapidly expanding desert community.

Seven years ago while Palm Springs High School was still a branch of the Banning Union High School District students discontinued going to Banning by bus and began attending classes in Palm Springs. While Palm

¹Superintendent of Schools, Palm Springs, Calif.



Detail of recreational unit. Aquatic sports are to be featured in pool directly below stage, which will serve inside and outside audiences.



Master site plan for Palm Springs Union High School showing location of proposed junior college and site of existing junior high school.

Springs remained a branch of Banning for the next two years, two classroom buildings were constructed and a temporary auditorium was provided during this time, together with makeshift shower and dressing rooms for physical education classes.

Then five years ago the Palm Springs Union High School achieved separate entity as a

secondary school district by withdrawing by popular vote from the Banning District.

The war years came, and although the growth of the high school continued, new buildings were unobtainable, and the original buildings, constructed to accommodate a maximum of 200 students, became overcrowded.

In April, 1946, the trustees began the construction of a reinforced concrete, six-classroom building to match existing classroom units. Whereas the original units cost \$38,000 each to build, the new structure, practically identical to the others in architecture and construction, cost \$170,000. The excessive cost of this unit — over \$25,000 per classroom — was justified only because it is a key unit connecting one of the original units in reinforced concrete with a proposed auditorium in such manner that an established elevation character had to be maintained.



Ernest E. Oertel

District Superintendent and Principal,
Palm Springs Union High School.

In February, 1947, the high school and elementary school districts of Palm Springs submitted bond issues to the voters which totaled \$1,500,000 — \$750,000 for each district. The issues passed by a vote of nearly ten to one.

The high school district now has plans and specifications prepared by architect Harry J. Williams of Palm Springs for a \$200,000 gymnasium. The gymnasium will provide shower and locker space and dressing rooms to serve both the gymnasium and a 60 by 120-ft., swimming pool located adjacent to the proposed auditorium. It is the plan of the school authorities to give emphasis to an aquatic sports program in the physical education department. The first step is to supply a sizable, heated outdoor pool which will be usable 12 months of each year. The pool is being located between the gymnasium and a proposed \$200,000 auditorium. The latter unit will have an exterior stage overlooking the pool and an open-air amphitheater across the pool. The stage may be rearranged quickly by a shifting of backgrounds and cycloramas so that it will serve an inside auditorium audience of 1250.

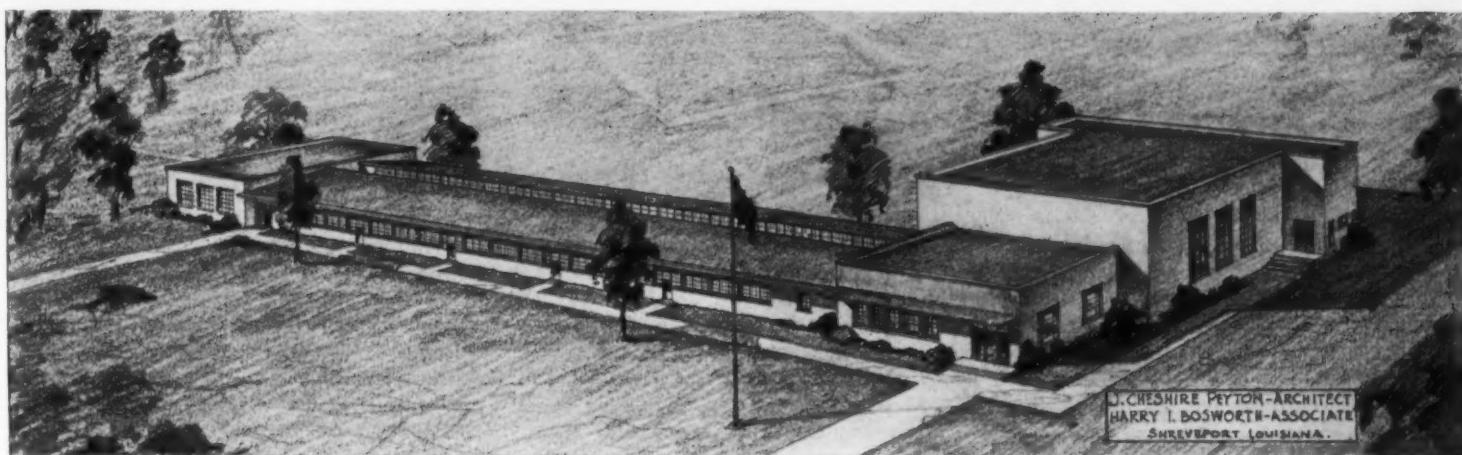
It is expected that the auditorium will be started by January 1, 1949. Separate shop buildings will then be built, also a home economics-cafeteria unit and a physical science center.

Palm Springs now has separate elementary and secondary school districts with separate governing boards of trustees. This system, typical of most California school districts at present, will change on July 1, 1948, when Palm Springs public schools will become unified and have one governing board of education. This change was authorized in December, 1946, when a majority of qualified electors in the high school district petitioned to have the two elementary districts embraced by the high school district units and

(Concluded on page 66)



Members of governing board, Palm Springs Union High School. Seated, left to right: Willard Hillery; Charles J. Burkett, president; Dr. Frank Purcell. Standing: Eugene Therieu; Gordon Feekings, clerk.



Perspective, Blanchard Elementary School, Blanchard, Louisiana.—J. Cheshire Peyton, Architect, and Harry I. Bosworth, Associate, Shreveport, Louisiana.

A Flexible Elementary School Building The Blanchard, Louisiana, Elementary School

An elementary school building, the design of which includes the newest ideas for implementing a broad elementary school program and for utilizing recent advances in lighting, ventilation, and interior finish, has been planned for the town of Blanchard, La., by Messrs. J. Cheshire Peyton, architect, and Harry I. Bosworth, associate. The new building will occupy a flat site with a 600-foot front and approximately the same depth. The plan is of the open, one-story type and will be so located on the site that the erection of a future wing will allow for the housing of the ultimate maximum pupil enrollment, in the area served.

The building includes at one end an administrative suite, with a teachers' room and a book and supplies room adjoining. In this same wing is a gymnasium which includes a stage and shower and toilet rooms suited to use by boys and girls. Immediately adjoining the gymnasium are the boys' and girls' toilets. The entire wing can be cut off from the balance of the building by means of a folding gate in the corridor.

The classroom section includes eight standard classrooms, with workrooms adjoining, a

homemaking room, and a large general science room which may be used also for boys' industrial arts. Four of the classrooms have built-in toilets for children in the primary grades.

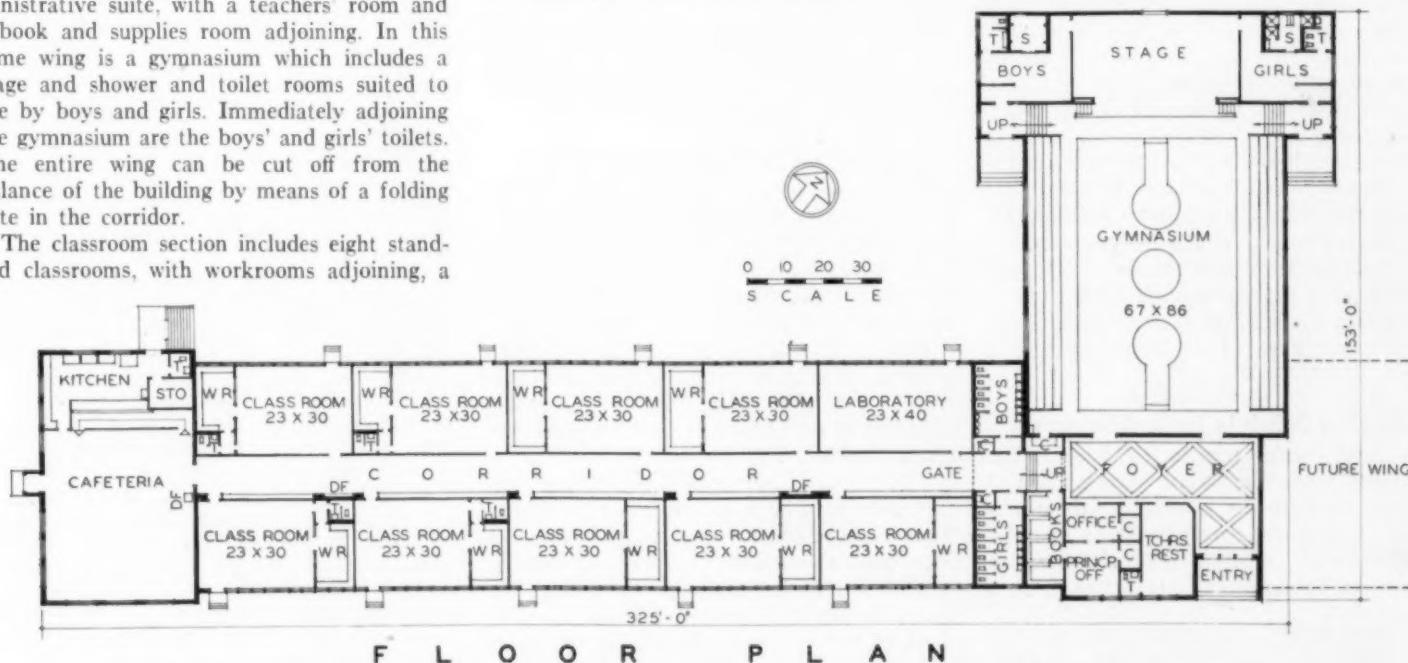
At the extreme left end of the building a cafeteria is planned with a kitchen and store-rooms. The arrangement is such that the room may be used for general purposes.

The exterior of the building is of modern design, with a steel-frame roof, and brick and stone-trim walls. The interior of the auditorium is finished in brick, and the classrooms have vertical wood panel walls and plaster ceilings. The toilet rooms have tile floors and glazed structural tile walls.

The corridor has a height of 9 feet and the classrooms are 12 feet high. This arrangement permits of clerestory windows in all classrooms adjoining the corridor. The windows are hinged and permit both of increasing the natural light along the inside of the classrooms and cross ventilation. The exterior windows are of projected sash.

The classrooms are heated by gas-steam radiators, and illumination for dark days is provided by means of fluorescent fixtures.

The building is planned to house 400 children and is to cost \$212,000 for construction, and \$50,000 for equipment. The construction is financed by a bond issue of \$250,000 and by direct taxation.



FLOOR PLAN
Blanchard Elementary School, Blanchard, Louisiana.—J. Cheshire Peyton, Architect, and Harry I. Bosworth, Associate, Shreveport, Louisiana.

Science Education —

Word From Washington

Elaine Exton

The scientific actualities of the Atomic Age surpass even a Jules Verne's imaginings. Radar, jet propulsion, the release of atomic energy, and a host of other recent scientific discoveries may, if properly used, perform miracles for the benefit of mankind, or, if used improperly, become weapons for destruction. On the achievements and applications of modern science hinge many phases of the future welfare of our nation and of the world.

Increased Importance of Science in the Life of the Nation

In a five-volume report on Science and Public Policy¹ John R. Steelman, chairman of the President's Scientific Research Board, asserts: "The security and prosperity of the United States depend today, as never before, upon the rapid extension of scientific knowledge. . . . If we are to maintain a bulwark of democracy in the world, we must continually strengthen and expand our domestic economy and our foreign trade. A principal means to this end is through the constant advancement of scientific knowledge and the consequent steady improvement of our technology. . . . Scientific discovery is equally the basis for our progress against poverty and disease."

So that the United States will not fall technologically behind other nations, the Steelman report includes these recommendations: "By 1957 we should be devoting at least one per cent of our national income to research and development in the universities, industry, and government. (In the past, in terms of our national income, such expenditures have never amounted to more than one half of one per cent.) Expenditures for basic research should be quadrupled and those for health and medical research tripled in the next decade, while total research and development expenditures should be doubled. (During 1947 national expenditures for research and development came to more than 1.1 billion dollars—the highest point in our history.) The Federal Government should support basic research in the universities and nonprofit research institutions at a progressively increasing rate, reaching an annual expenditure of at least 250 million dollars by 1957."

America's Deficit in Trained Scientists

However, "under present conditions," the report continues, "the ceiling on research and development activities is fixed by the availability of trained personnel, rather than by the amounts of money available. The limiting resource at the moment is man power. . . .

¹For sale by the Supt. of Documents, U. S. Government Printing Office, Washington 25, D. C.: Vol. I, *A Program for the Nation*, 20 cents; Vol. II, *The Federal Research Program*, 55 cents; Vol. III, *Administration for Research*, 55 cents; Vol. IV, *Manpower for Research*, 35 cents; Vol. V, *The Nation's Medical Research*, 25 cents.

The shortage of scientists is a product of sharply increased demand accompanied by a less-than-normal supply. . . . Between 1940 and 1947, the national research and development budget increased 335 per cent, while the supply of trained man power was expanding only 35 per cent."

This unfortunate deficit in scientific personnel can be traced in part to the government's wartime decision against deferring science students. According to the Steelman report: "By the fall of 1943, the draft of men into the armed forces had cut in half the total number of science students, and delayed the graduation of thousands. By 1945, the production of doctors in the physical and biological sciences had declined to 776—considerably less than half the high of 1900 granted in 1941. . . . The total effect to date has been to deprive the nation of some 90,000 bachelors of scientific subjects, plus some 5000 doctors. . . . The net 'loss' of trained scientists, professors of science, and research engineers is estimated to be some 40,000, of whom about 7600 would have been Ph.D.'s."

"Surely out of the bitter experience of this war should come the realization that trained personnel is our most valuable asset in science," President Raymond B. Fosdick comments in his *Review of Work of the Rockefeller Foundation in 1946*. Stressing that there is a serious, even an alarming shortage of adequate personnel in almost every field which requires advanced thinking—"whether in physics or chemistry or the biological and medical sciences"—he points out that "in subjects like bacteriology, biochemistry, anatomy, biophysics, and physiology, it is almost impossible to find younger men with adequate teaching and research qualifications."

Science Challenges the Schools

The Co-operative Committee on the Teaching of Science and Mathematics of the American Association for the Advancement of Science, under the chairmanship of K. Lark-Horovitz of the Physics Department of Purdue University, reports:² "We must not only develop a corps of scientists sufficient in number and competence to insure continued progress but also make a concerted effort for mass education of our citizens in scientific principles and attitudes. . . .

"The needs of our modern society are such that there must be included among the experiences common to all youth the opportunity to understand the scientific method, to become familiar with the influence of science on human life and thought, and to know the facts fundamental to an understanding of them

²From "The Present Effectiveness of Our Schools in the Training of Scientists," Appendix II of Vol. IV, *Manpower for Research* of the report *Science and Public Policy*.

selves and of their environment. Science should also contribute to the social adjustment of children and youth and to their ability to solve their problems through careful thinking based on the methods and the findings of science. . . . If scientists are to function effectively they must work in a society where the individuals appreciate science. And, obviously, capable scientists will develop in larger numbers in a society where good instruction in science is a part of general education."

Among the challenges that face the schools in the development of effective science programs these three stand out: (1) finding and nurturing scientific talent so as to assure an ample and continuing supply of well-trained scientists capable of extending scientific knowledge and contributing to scientific progress; (2) providing all future citizens with opportunities to acquire a basic understanding of the principles and methods of science and an appreciation of their application to modern life; (3) employment of adequately trained science teachers, competent both with respect to subject matter and teaching procedures, so as to assure good instruction in science for both general students and potential scientists.

Science Courses Adapted to Pupils' Needs and Interests

Some suggestions for extending and improving science education in line with these three objectives follow. The recommendations concerning elementary grades have been taken from the report of the Cooperative Committee on the Teaching of Science and Mathematics of the American Association for the Advancement of Science just referred to, the recommendations concerning high schools come from a paper presented at a meeting of the Secondary School Section of the American Society for Engineering Education on June 20, 1947, in Minneapolis, Minnesota, by Dr. Philip C. Johnson, Specialist for Science in the U. S. Office of Education's Division of Secondary Education.³

IN ELEMENTARY SCHOOLS

1. Specifically, additional consideration should be given to the methods for identification of pupils with special talents and aptitudes in science and mathematics. Special activities and encouragements should be provided for these talented individuals. It is essential that carefully prepared pupil records be made which will serve first to identify special science interest and abilities and then to keep new teachers of the pupils informed so that the growth and development of the talent may be continued from grade to grade and year to year.

2. More assistance to classroom teachers should be provided through the use of science consultants, supervisors, and others, who are able to integrate science with other areas in the curriculum and otherwise organize the learnings in science. In this connection, definite steps should be taken to articulate the elementary school science program with that of the high school with respect to course content, activities, methods, purposes, and general philosophy. Planning of this nature on a 12-year basis should become a general practice throughout the nation's schools.

³The staff of the U. S. Office of Education's Division of Elementary Education also includes a Specialist for Science: Glenn O. Blough.

3. There is a great need for more carefully planned teaching materials, both for teachers and pupils. It is recommended that state and local groups be encouraged to prepare source materials in accord with the best present objectives of science and mathematics for the elementary school level, and that such material be made available to all classroom teachers. It is assumed, of course, that teachers themselves will be given opportunity to assist in developing this material. Such material is essential to the establishment of programs of science and mathematics that provide continuity and substance. In-service workshops are especially useful for the development of materials of this nature.

IN SECONDARY SCHOOLS

1. Large cities can set up special schools open only to selected students. In the science high schools there can be many special science opportunities for the science-talented students while providing English, social studies, and other non-science courses suitable to such students and geared to their special needs. In such a high school the students will study biology, physics, and chemistry, plus electives in biology, geology, physics, and/or chemistry, beyond the basic courses. The remaining high schools may then be either general or for students other than the especially science-talented ones. There the usual physics and chemistry courses are far less apropos, and serious attention should be given to life adjustment types of science courses.

2. Where special science high schools are impossible there are still many adaptations readily possible provided the high school is large and there are several science teachers. It is possible to set up parallel offerings with physical science or applied science courses for the general students, and rigid physics and chemistry courses for the students with scientific interests and abilities. It is also possible to relate to the general courses certain "Honor Classes" for the able students. Guidance for such work can be provided by the one teacher best qualified in such work. Some of this work can be done during the regular course time, some can be done during free periods, during out-of-school hours, and possibly during vacation periods.

3. The smaller schools, in which a large proportion of our students are found and in which there are only one or two science teachers, find it difficult or impossible to provide parallel offerings to supervise the talented students in all the specialties toward which they may indicate deep interests. Nevertheless, these schools have the need and responsibility to adapt courses to the needs of all students and also to provide guidance to challenge the interests and talents of potential scientists.

The most hopeful means of adapting the sciences to the needs of the students in the smaller high schools are those provided by general courses with differentiated assignments so that individual needs and interests can be given some recognition. These schools can offer a one-year course in the biological sciences and a corresponding one-year course in the physical sciences. Students especially interested in physics or chemistry can take such courses by correspondence with the science teachers serving as the counselor. Through differentiated assignments such as contracts, mastery units, and group-conference plans, there can be wide adaptations not only to the talented but also to the students of mediocre or lower ability. Through revised courses and individualized instruction, based on differentiated assignments, the sciences can be adapted to the needs of students in even the small high schools.

Science Information for Teachers

A year ago, the National Science Teachers Association, a department of the National Education Association, organized a membership service under the direction of Miss Bertha E. Slye "for the purpose of selecting, evaluating, and distributing useful and timely 'Science Information for Teachers'" to help them keep up to date on current developments in science and to furnish supplementary educational materials of use in relating classroom work in science to the world outside.

In an attempt to bridge the gap between the information on science provided in textbooks and that found in publications on new products and processes developed in industrial research laboratories, as well as to aid teachers



in making wise selections from among the myriad materials for classroom use being issued by more than 500 industrial companies, the Membership Service of the National Science Teachers Association plans to send its members at least four science teaching packets each year consisting of from eight to a dozen carefully chosen publications prepared by industrial, scientific, and governmental organizations.

Booklets, charts, commercial bulletins, copies of radio talks, and reprints of articles from science magazines are collected from industrial and scientific concerns by the N.S.T.A.'s Membership Service, screened, and turned over for evaluation to a committee representative of various fields of science teaching. Packet items are selected from the materials judged "superior" or "good" by this committee. Supplementary science teaching materials included in the two packets distributed thus far have ranged in subject matter from nutrition to nuclear energy, and have dealt with such diverse topics as aluminum, air transportation, and atomic power.

The Membership Department of the National Science Teachers Association offers a service to industry that includes: (1) specifications for supplementary materials in the teaching of science; (2) evaluation and distribution of acceptable materials; (3) consultation service for industries planning the produc-

tion of educational materials. "Out of such services can come," in the opinion of Miss Slye, "a better interpretation of science, the establishment of a stronger base of informational experiences for students and teachers, and a better understanding of the relation of science education to the preparation of the future 'Faradays' or 'Madame Curies' who will carry on the scientific research of tomorrow."

Meeting of the American Association for the Advancement of Science

The role of science in national affairs and in education will be prominently featured during the annual meeting of the American Association for the Advancement of Science (A.A.S.) and its 65 affiliated societies convening in Chicago, December 26-31, 1947. Educational groups holding special sessions in conjunction with this conclave include: The A.A.S. Co-operative Committee on the Teaching of Science and Mathematics, the A.A.S. Education Section, the National Association of Biology Teachers, and the National Science Teachers' Association.

It is anticipated that a leading attraction of the convention will be "The Young Scientists Assembly" on the afternoon of December 27, which will be chairmaned by Dr. John W. Thomson, Jr., director of the Junior Academy of Science in Wisconsin. "The Importance of Extracurricular Activities in the Development of Science Students" will be discussed by a dozen or more science-talented young people, between the ages of 17 and 24, who have been previous Science Talent Search winners or members of school science clubs or Junior Academies of Science and are currently college or graduate students. Later in the program the discussion will be thrown open so that scientists and science teachers in the audience can question the panel members and make comments.

The Young Scientists Assembly, which was first held last year, in Boston, during the annual meeting of the American Association for the Advancement of Science is described in some detail by its first director, Dr. Herbert S. Zim of the Fieldston School in New York City, in February, 1947, issue of *The Science Teacher*. Its initial success makes it appear likely that it will become an annual event of the A.A.S. Convention and as Mr. Zim points out in his article "the idea of the Young (Junior) Scientists Assembly is valuable locally as well as on a national scale. Wherever there is a community large enough so that a reasonably large group of science-talented students can be brought together, there is a possibility of subsidiary science education of an important type. The Junior Academies of Science are already working in this direction."

Seventh Annual Science Talent Search

December will be a Red Letter Month for would-be scientists for still another reason. During that period, some 16,000 boys and girls in accredited secondary public, private, and parochial schools across the nation will

(Concluded on page 62)

**The American
School Board Journal**

A Monthly Periodical of School Administration
Edited by
Wm. Geo. Bruce and Wm. C. Bruce

WILL THEY HELP?

THE large advertisers of the United States have been approached in recent months to carry on an advertising campaign designed to correct the failures and weaknesses in the public school system. The prospectus sees at present an "urgent crisis" and lists a series of "shocking" facts. It is claimed that teachers' salaries are less attractive now than they were before the war; that teachers, in addition to the exhausting work in large classes and the long hours spent each evening in correcting papers, must frequently handle extracurricular activities and sometimes shoulder heavy community responsibilities; that the teachers are subject to annoying restrictions in their private lives and that many of them do not enjoy freedom of speech; that teachers' morale is strained to the breaking point due to overcrowded classrooms where discipline is difficult; that teachers feel they are unaccepted socially and that they are bitter over unjust conditions in their profession. The children, it is claimed, are suffering from our intolerable and shameful educational situation. The statement is made that "reforms must and can take place. And those reforms—absolutely vital to the maintenance of our American standards of living, our world leadership, and our economic growth and prosperity—must be backed and accelerated by the one great force essential to such accomplishment, *public opinion*."

The entire approach in this advertising is unwise and will not contribute to the solution of the real problems that confront the schools. If the advertisers want to ignore the recent universal increases in state support of education and the higher local tax levies for schools; if they have not learned about the increases in salaries and the reforms in salary schedules; if they have not heard of the steady progress in the reduction of average class sizes and the efforts to balance teaching loads; if they have overlooked the generous provisions for sick leave, for pensions, and in many places for hospitalization for teachers—they might develop favorable public opinion for some of the 1947 and 1948 needs of the schools. They might ask that the hazards surrounding the superintendents be removed; that some of the pitfalls and dangers of city school administrators which Dr. Bartky has condemned in the

Saturday Evening Post be removed. They might call attention to the fact that the schools depend too largely on property taxation for their support and that there is need for a better balance of state aid for a core program available to all children, and financed under a sound plan of taxation. They might urge immediate school building planning—and construction—to fit the school plants to the new program of education, to overcome obsolescence and fire hazards, and to make every school an adult recreation center.

The current campaigns for school improvement should shift to a positive basis. They should express the fact that the schools must produce for the postwar world much stronger men and women than any previous period in American life; that greater skill in the tool subjects is needed; that industry, the trades, and business are on a level which cannot use any but well-trained and skillful mechanics, clerks, and executives; that the social problems in family, community, and personal life are complicated, fast-moving, and infinitely more difficult than those of the good, old days; finally, that the individual for whose welfare and democratic freedom our American Republic exists, more than ever requires education for living the good life as a man, with his present and eternal destiny in focus.

There is need somewhere for more constructive educational planning than we have had in recent years. There is need on the part of the teacher organizations for dropping the tone of injured poverty and the scolding attitude reminiscent of old-time classroom discipline. There is need for dropping the criticisms of school boards, who deserve much commendation for their leadership in bringing school support up to a higher level. The job of the boards is by no means ended, particularly when it is remembered that the continuing rise in living costs will make further efforts for increased school revenue necessary in 1948. Unquestionably, the position of the U. S. Office of Education in the Federal Government must be raised so that its head and his associates can exert a type of leadership for which they are fully qualified. The total need is to sell the schools as one of the great American institutions which share in American prosperity and the American way of doing its business in a competent manner and with high appreciation of its public employees.

MR. AARON RETIRES

THE Pittsburgh board of public education has accepted the resignation of Marcus Aaron, who served as a member since 1911 and who headed the board as its president from 1922 to 1936.

Mr. Aaron came into the work when each ward of the city had its own school board, and was one of a small group of civic-minded men who removed the schools from politics by the intensity of their devotion. During his many years on the board, he headed endless fights against politicians, real estate and taxpayer organizations, and others who sought to cut school costs or to gain personal advantage. He persisted in seeking to build up the schools by opposing outside interference. For the benefit of the children, any constructive idea readily met his support, and the administrative heads of the schools could always rely on his critical but sympathetic help in any major undertaking. He summed up his thinking in the statement: "The schools of the nation must not be made the football of local politicians or of ignorant, selfish, and unthinking minorities. And it is the business of school officials to prevent it." On another occasion he said: "In times of economic distress no less than in days of prosperity, public education is the most vital and most important of all industries. Our children are our greatest asset."

Much of the greatness of American schools rests on the services of unselfish men like Marcus Aaron, men who without desire for reward or honors, give endless hours of their time and the best of their ability and insight for the benefit of the schools and of the nation.

BEAUTY IN SCHOOL BUILDINGS

SHALL we seek beauty in our new school plants? Or shall we be content with severe utility, with strict adherence to the requirements set up by educational use and hygienic needs for safety, good lighting, etc.? Shall the beauty be limited to the kind which gives unconscious pleasure in the correct use of good materials and avoidance of insincerity through additions to outlines and masses, or the placement of features like windows and entrances for mere balance and rhythm? Or can we demand of our architects and designers some additional elements which heighten the enjoyment of our schoolhouses as focal points of civic and community beauty—buildings that raise our respect and love for our American life—for its values, and for its permanent contribution to the dignity and happiness of the individual person?

The architecture of our American schoolhouses has improved immensely since the days when towers and turrets were considered necessities, when heavy stone arches hid the flimsy wood construction of the interiors, and Greek pillars set upon high stone steps merely interfered with the easy access to a building. During the past two decades, we have dropped the silly notion that our schools should imitate Italian Renaissance palaces, or even Colonial mansions. We

have adjusted the scale to the understanding of the children and have sought to make the buildings fit into the home neighborhoods where they stand. In doing all this, we have gone to the other extreme and have simplified the buildings to the point of bareness so that the structures give no clue to the people who inhabit them, or the activities they carry on. Most of the new designs can hardly be distinguished from a factory office, a research laboratory, or a hospital. The modern home, the store, the factory, clearly reflect their function—not so the modernistic schoolhouse.

Are our democracy and our educational programs so lacking in interior meaning and deeper purposes that they cannot be expressed in forms and ornament that reflect educational lives and activities of the teachers and children who use the buildings? Or have the designers and the public officials responsible for these buildings, failed to catch the new ideals which American education represents and to express these in a significant way? Certainly, the new school architecture will be a failure,

if the dignity and high value of the democratic life, and its processes of formation are not brought home to the coming generation of men and citizens. Or must we admit that the philosophy of the new architecture is so devoid of meaning that it cannot be made to express the educational function of the school?

HIGHER BOND COSTS

SINCE the late summer, the yield of corporation and municipal bonds has experienced a distinct upward trend and this situation has been reflected in the interest rates of municipal bonds. The immediate cause is ascribed to greater demands for commercial loans which return distinctly higher interest rates and the vast increase of permanent financing for industrial and public purposes. The financial press has also called attention to a growing insistence on the part of insurance companies and other institutional buyers of long-term bonds for income which will enable them to carry on better for their members and beneficiaries. The higher interest rate too

seems to have the indirect approval of the Treasury. It would appear that the present trend will affect the issuance of bonds for school construction; it will certainly hamper, if not stop, the practice of issuing school bonds and of reinvesting the proceeds in U. S. bonds. The trend in school bond prices deserves close attention of school boards who have plans for 1948 school construction.

INSURANCE POLICY

The report on the status of school fire insurance, 1938-45, presented by S. C. Joyner to the Association of School Business Officials, is a significant document because it reflects the improvement in the total school insurance situation due to the activities of school-business executives and points the way for further unifying practices. In general, there has been a marked reduction in fire insurance costs since the A.S.B.O. first began its committee activities in 1922, due in part to the reduction in the state rates applied to schools and in part to the assumption of coinsurance risks by the school districts and the lengthening of the policy terms. Further improvement has arisen out of the improvement in the construction and housekeeping of school buildings and the standardization of policy forms.

The school boards, according to the committee have six major areas in which improvement must be worked for. There is need, first, for unifying and centralizing the responsibility for handling the insurance of local school districts. The haphazard methods of allowing a committee, a clerk, or even an insurance broker to control and administer the local insurance, must be replaced by centralization of the job in the hands of the business manager under the direct authority and supervision of the board. There is need too, for professional advisory service, particularly in communities which have not unified their practices. A second, and the most important, problem of the present is the reliable appraisal of school buildings and their contents to make possible the economical application of coinsurance. The increase in all building costs and the consequent difficulty of replacing a school in case of a fire make a plan for frequent and reliable reappraisals necessary. A fourth problem centers in the actual methods of adjusting the program to the greatest advantage of the local school district. School policy forms have never fully satisfied school executives and a fifth problem is the adaptation of the standard state forms to include protection needed under situations peculiar to school property.

Insurance premiums are invariably a problem for school boards, and a sixth problem of insurance betterment will perhaps always be rate reductions. At present, these are possible through coinsurance, the elimination of penalties for hazards, competitive bids, and statewide bargaining on rates. The insurance companies have been willing rarely to recognize the character of school-building risks and the ratio between losses and premiums has given evidence of exceptionally profitable business.

Fire and storm insurance on school buildings involves constant study, a continuous adjustment of practices to the total insurance picture, and the application of methods which will eliminate favoritism, politics, and waste. The A.S.B.O. committee is pointing the way.



DON'T BE AFRAID SON

— Chicago Sun

School Business Administration

LOCAL SCHOOL TAXES AND FEDERAL TAXES

Local school taxes are diverted from use for local school services to the Federal Government in the form of income taxes. W. W. Bailey, assistant clerk and treasurer of the Rock Island, Ill., school district, shows in a recent report that in Rock Island as much as \$90,000 of school taxes in 1945-46 found their way into the federal treasury and really did not contribute to the service of the local school services.

In the report it is indicated that 91 per cent of the local educational levy is used for teachers' and other instructional salaries, and a lower percentage of the building levy is so used. Of the total funds received by the school district, 76 per cent was paid out in salaries and wages. The total moneys paid for salaries need not have been so high if a good part had not been drained from the checks of teachers and other employees for federal income taxes. Or, the school board could have paid the teachers, who are admittedly underpaid, the \$90,000 to remain in their take-home-pay and thus could have more amply compensated them. Mr. Bailey continues to explain the inconsistency in the practice of the Federal Government in levying an income tax on school salaries:

"The Supreme Court still holds that a tax on the interest of school bonds is unconstitutional, because that would be a tax upon the school system which in itself is a tax-supported organization. Now, of course, the reason behind that belief is this—school bonds, although paying a low rate of interest, are attractive because the income they produce is tax exempt, and if a tax were placed on this form of income the bonds would have to yield a higher rate of interest to attract buyers which would, of course, increase taxes. During the time that teachers' salaries were tax exempt (prior to 1939) that in itself was an attractive feature of such a position. As in the case of low interest on tax-exempt school bonds, the "yield" in teaching wasn't as high as some other investment, but neither was it taxable. As a result, when teachers' salaries did become taxable, it was necessary that the teachers be paid more money to offset this loss which in turn increased the local tax levy.

"To illustrate further, let us take two possible situations: (1) If the present 'take-home-pay' of teachers in Rock Island is as high as it should be, commensurate with the preparation, work done, place in the community, and standards of living the teachers must maintain, and if their salaries were not taxed by the Federal Government, the local school tax could be reduced by \$100,000 for this year of 1946-47.

"2. If the present salary schedule is not high enough in relation to the above characteristics—and most studies show that it isn't—and if the income taxes were not deducted, the local school system would receive an increase of \$100,000 without a cent of added local taxes.

"I am not attempting to justify the right or wrong of teachers and all tax-supported

bodies' employees having to pay or not pay a federal income tax, but we must look beyond the statement that 'tax increases can be attributed to levying bodies,' and see that of this increase locally \$100,000 is money collected by the county collector for 'the purpose of establishing and supporting free schools'—which never reaches its goal. Instead, it is paid to the Federal Government. If Congress thinks strongly of giving federal aid to schools it should not overlook the easiest and most economical way of doing it—that of prohibiting the collection of federal income tax from salaries produced by local taxation."

MEASURING PURCHASING EFFICIENCY

Donald G. Clark, director of purchases for the Gulf Oil Company, has recently raised the question whether the efficiency of a purchasing department can be measured. He is fully convinced that a mathematical formula cannot be used but that some general considerations can be applied. He suggests six check points in the bulletin of the National Association of Purchasing Agents, which he believes should be applied by purchasing agents to their own work.

1. *Evaluation of the characteristics, ability, and organizing skill of the head of the purchasing department.* Obviously, the purchasing agent would not evaluate his own characteristics, but the management engineer, the auditor or an executive of the company would be capable of estimating the qualifications of the head of the purchasing department. Under this heading would come opinions as to the integrity, the intellectual ability, the skill in organizing a department and any other characteristic of the purchasing agent which bears upon his value and ability to serve the company.

2. *Broad statement of policy.* The truly efficient department should be guided by a written, well-founded, broad statement of policy which is adhered to in actual practice.

3. *Manual of procedure.* A correct and helpful, written standard manual of procedure which establishes a uniformity of practice and outlines definitely the individual duties of the purchasing personnel is an excellent point in determining how efficient any large department is.

4. *Delivery of the proper quality and quantity of goods on the necessary time schedule.* Whether or not the purchasing department is efficient in the performance of its duty is a matter to be decided by the manufacturing and production executives who deal with and depend upon the purchasing department for materials and supplies. Obviously, such opinions may vary among different executives, but it should be possible to record the results with some degree of certainty.

5. *Prices paid for material procured.* Spot checks and audits of purchasing transactions may be made regularly by the auditing department to determine if the department buys at the right price. What constitutes the right price, however, is a matter for discussion, and Mr. Clark cautions that the efficiency of the purchasing department does not depend on its



DR. ENGELHARDT RESIGNS

Dr. Nickolaus L. Engelhardt has retired from the New York City school system where for the past five years he has been associate superintendent of schools in charge of buildings and business administration.

Before his entrance into the New York City school system, Dr. Engelhardt spent 26 years teaching courses in administration at Teachers College, Columbia University, and making surveys of school systems throughout the country.

Dr. Engelhardt plans to develop a School Planning Institute in New York City. Associated with him will be Dr. Nickolaus L. Engelhardt, Jr., and Dr. Stanton Leggett who have done research and have written in the field of school buildings.

Dr. Engelhardt and his associates will undertake shortly a survey of the school plant of San Francisco, Calif., and will act as educational advisers on the planning of all new schools in that city. They are also serving the cities of Louisville, Ky.; Charlotte, N. C.; Lynchburg, Va.; Naugatuck, Conn.; Montgomery County, Md.; Washington County, Md.; Dorchester County, Md., and other counties.

buying of bargains but, rather, on securing the price which is proper in view of the volume of its purchases and its position in the industry.

6. *Operating Costs.* Provided proper allowances are made for changing conditions and for volume of work, tangible results may be measured from this check point.

In concluding his statement, Mr. Clark suggests the establishment of check points similar to those outlined and the establishment of a method for checking them. The result will be a method for evaluating, with a reasonable degree of certainty, the efficiency of the purchasing department.

HOLD MIDWINTER INSTITUTE ON CORRECTIVE AND REMEDIAL READING

Dr. Emmett A. Betts has announced the 1948 midwinter institute on reading disabilities, to be held February 2 to 6, at Temple University, Philadelphia, Pa. The Institute is part of a three-year evaluation program designed to set up new programs and to evaluate existing ones. The emphasis for 1948 will be placed on the content area approach.

The meetings will be conducted by Dr. A. M. Skeffington, Dr. Lester N. Myer, and others in the field. Dr. Betts, director of the clinic, may be addressed at Temple University, Philadelphia 22, Pa.

Classrooms — with a difference

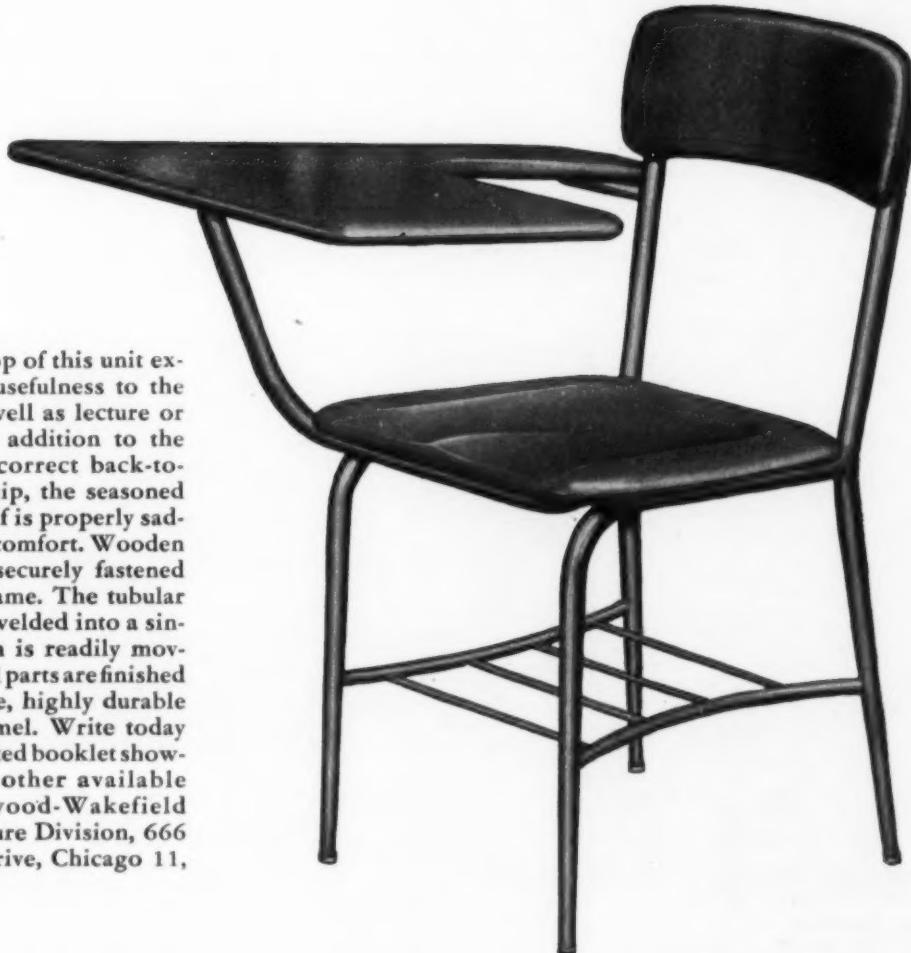
Good teaching has always meant adaptability to the needs of the group and the individual. So classrooms tend to look more informal these days with good reason. For educators have found that facilities, too, should be adaptable. The flexibility of Heywood-Wakefield school furniture is keyed directly to this trend.

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School Boards in Action

COMMUNISTS ADMITTED

The New York City board of education, by a vote of 5 to 2, has rejected a resolution to ban the communist party, fascist, and other subversive groups from holding meetings after school hours in public school buildings. The immediate cause of the resolution was meetings of the American Youth for Democracy, a communist front organization of young people. In explaining his vote against the proposal, President Andrew J. Clauson declared his opposition to "the programs, the allegiances, the bigotries, and the methods of such groups." He objected to departing from the American tradition of freedom of speech and assembly. Board member Simeon Timone, who proposed the resolution, declared that free speech and free assembly are not at issue because the groups involved have the right to hire a hall or to meet in places other than schools.

"The communist party is a subversive, disloyal, conspiratorial group committed to the destruction of the very ideals which our school organizations are striving to foster, both within the school as well as in the neighborhoods in which they are located," Timone declared, adding that "it seems obvious that to permit our schools to be used by subversive organizations, with the resultant tensions thus created, is a ridiculous antithesis of what our schools are trying so hard to accomplish."

As an example of the kind of meeting that may be expected under the present liberal policy, Mr. Timone pointed to a session scheduled for October 30 at Public School 96 in the Bronx, at which Gerhart Eisler, top communist agent in the United States, and Carl Marzani, former state department employee now under a jail sentence for concealing communist affiliations, were slated to speak.

CHICAGO SCHOOL EXECUTIVES ASK STATE FUNDS

Faced with a record budget of \$106,000,000 for 1948, two top school officials in the city of Chicago have planned to make a final plea to the governor for additional state funds. President Charles Whipple of the school board pointed out that funds must be provided in next year's budget for additional costs in teachers' salaries, and for increases in appropriations for the building fund and for salaries of 8000 civil service employees.

Supt. Herold C. Hunt and President Whipple will shortly call on the governor and lay before him facts and figures in the Griffenhagen survey, which show that Illinois is eighth from the top of ten major cities in the amounts they receive in state funds. They will also present the needs of 14,000 teachers who are demanding substantial salary increases in 1948. The Griffenhagen study showed that Chicago gets 11.1 per cent from the state for school purposes, compared to New York City's 39.6 per cent.

SCHOOL BUILDING FIRES

During the year 1946 the National Fire Protection Association received reports concerning fires by occupancy in 14 states, ranging from Connecticut in the east, Louisiana on the south, Minnesota on the north, and Oregon in the west. A total of 317 school conflagrations were reported, with total losses of \$1,977,727 in 13 states.

The Association estimates that the total number of fires in school and college buildings in 1946 amounted to 2300 conflagrations, causing a loss of \$11,000,000.

THE A.A.S.A. ANNOUNCES PROGRAM FOR FEBRUARY MEETING

The officials of the American Association of School Administrators have announced the completion of the preliminary program for the annual meeting, to be held February 21 to 26, in Atlantic

City, N. J. Dr. Herold C. Hunt, president of the Association, has prepared the program which will include a number of discussion groups.

The theme of the convention will be "The Expanding Role of Education." The Monday afternoon group will discuss the school board and the superintendent, the planning of the school-building program, and the planning of a year-round school program. On Tuesday afternoon, the group will take up taxation problems and the economics of the teachers' salary crisis, the professionalizing of the superintendent, trends in health education, religious instruction, and public relations programs. Meeting teachers' salaries and housing needs in the face of rising costs will be discussed at the Wednesday afternoon session.

COLLEGE ENROLLMENT AT PEAK

College and university enrollments reached a total of 2,299,507 as of November 1, 1947, according to an announcement of the U. S. Office of Education. The increase over the same time in 1946 was 10.65 per cent.

The highest rate of growth was in Negro institutions which reported a rise of 25.6 per cent. The largest numerical growth was in the universities and colleges where a growth of 161,756 was reported.

HOUSTON SCHOOL NEWS

Members of the Houston, Tex., school board have had to turn their attention from teachers' salaries, new and enlarged school buildings, various forms of promotion of teachers, and other matters governing the public schools, to requests and recommendations from patrons of the schools.

Recently Texas came into the limelight by extra efforts on the part of officers to clamp down on all forms of gambling in the state. Following the widespread publicity about gambling in Houston, the Houston Council of Parent-Teachers called on the board requesting that they forbid the playing of any form of chance games in the school's annual fund-raising campaign, or any other entertainment under the auspices of any of the schools. They especially called attention to the game of "keno" in which children often took part. The request was granted.

At the last meeting of the board, a group of mothers submitted a detailed list of their own observations of their children, and asked for numerous changes in the curriculum. They recommended the elimination of social studies as now taught, and as a substitute a full course in both history and geography. They wanted the nine-week "broadening and finding" course eliminated saying they believed that a child of the average age in which this course is given is not capable of assuming the responsibility of his future course of study in any one subject. They urged that grammar begin in the third grade saying "it is very disconcerting to parents that their children enter junior high school with so little knowledge of English grammar." They argued that foreign languages should never be presented to children in a course of less than nine months. Request was made that academic requirements for graduation of all students be equivalent to the minimum requirement of state colleges, regardless of whether the students plan to enter college or not.

The committee explained that they were not setting themselves up as educators, but had formed their ideas from close observance of the progress their children made in their studies. The board referred the recommendations to Supt. W. E. Moreland to be used in drawing up recommendations for curriculum revision in the future.

NEW YORK CITY TO REDESIGN ITS SCHOOLS

Anthony Campagna, chairman of the committee on buildings and sites of the New York City board of education, has recently declared that high and rising construction costs may force the board to adopt simpler and less efficient designs and layouts for new schools to be built during the postwar period. He made the statement in elaborating upon a warning he issued previously against the present madhouse state of affairs in the construction field, which have caused costs for new schools to increase 100 per cent over 1940 estimates, and which give indications of going higher.

"We need new schools badly, and we want to build them now," he said, "but we cannot be expected to continue paying prices which are outlandishly high." Unless costs are reduced to a reasonable point, the only answer will be to scrap the present blueprints and start from scratch in designing schools which accommodate pupils, even though they lack some of the advantages provided in buildings now under construction.

Democracy is not the greatest good to the greatest number, but the greatest possible good to everyone.—Isaac Doughton.



Anderson, Ind., School Board in Session

Reading from left to right: Mr. Foust Childers, Board member, immediate past President, Director of Public Relations Delco-Remy Division of General Motors, Mr. A. R. Chadd, Superintendent Anderson Public Schools, Mrs. Louise Hopping, Treasurer of the Board of School Trustees, Mr. Noland C. Wright, President of the Board of School Trustees, Insurance and Real Estate Broker, Mr. Townsend S. Albright, Secretary of Board of School Trustees, Albright Funeral Home, Mr. Arthur A. Beckman, School City Attorney, Attorney and President Anderson Federal and Loan Association, Mr. Glen M. Rogers, Board member and past president, President of Rogers Electric Company, Inc., Gertrude S. Plotner, Clerk of the Board of Education and Secretary to Superintendent of Schools.

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Research has shown that from one to three children in each school room are handicapped by hearing defects which are often unrecognized. Early detection of hearing loss is a must for these children if they are to receive all the necessary benefits from their school training.

Health authorities agree that periodic hearing tests provide the best means of discovering children with hearing defects. Many states have passed laws requiring periodic hearing tests of all school children with a pure tone audiometer. Others have placed mobile clinics in the field to test their hearing. In every state, increasing emphasis is being placed on periodic audiometer testing.

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School Law

The federal court of New Orleans, La., in a decision rendered on November 7, has ruled that Negro school teachers must be paid the same salaries as white teachers of equal qualifications. Judge Wayne G. Borah, in deciding the case, said that Negroes are denied equal protection of the law if they are paid under a dual system which pays higher salaries to white teachers.

The decision was rendered in a three-year-old case against the Iberville parish (county) La., school board. Wiley Butler McMillon, a Negro principal, sought a court injunction to halt what he called discrimination against Negro teachers. As principal, he received an annual salary of \$505.50, while a white teacher with similar qualifications, received \$1,474.20.

School Lands and Funds

The segregation of children of Mexican descent in separate schools is not authorized by the

California statutes. Calif. education code, §§ 8003, 8004, 16004, 16005, 16601.—*Westminster School Dist. of Orange County v. Mendez*, 161 F. 2d 774, Calif.

Schools and School Districts

School districts are public corporations clothed with governmental power to perform a public duty of providing public schools. M.S.A. constitution, art. 8, §§ 1, 3.—*Muehring v. School Dist. No. 31 of Stearns County*, 28 Northwestern reporter 2d 655, Minn.

The Kansas legislature has absolute power over the organization of school districts.—*State ex rel. Donaldson v. Hines*, 182 Pacific reporter 2d 865, 163 Kans. 300.

School District Government

The Oklahoma constitutional provision vesting the power of supervision of instruction in the State Board of Education is not a limitation, but a grant of power. O.S. 1941 constitution, art. 13, § 5.—*School Dist. No. 25 of Woods County v. Hodge*, 183 Pacific reporter 2d 575, Okla.

Under the Kentucky law, neither a county board of education nor the individual members thereof are liable for the negligence of a board employee engaged in operating a school bus belonging to the board.—*Standard Acc. Ins. Co. v. Perry County Board of Education*, 72 F. Supp. 142, Ky.

School District Property

Where a schoolhouse used by a common school district in Texas was located on land owned by a church and jointly used by the church and school, and the school authorities at the time of the consolidation of the common school district with the independent district, abandoned the further use of the building for public school purposes, the school authorities thereby forfeited any pre-existing right they had in the building.—*Evangelical St. John's Church of Falls County v. Otto Independent School Dist.*, 203 Southwestern reporter 2d 299, Tex. Civ. App.

School District Taxation

The expenditure of public funds for the procurement of insurance against the negligence of the drivers of school buses owned and operated by boards of education of counties in Kentucky is authorized by the Kentucky statute, KRS 160.310.—*Standard Acc. Ins. Co. v. Perry County Board of Education*, 72 F. Supp. 142, Ky.

The difference between a debt incurred by a school district by a voluntary contract, and one imposed by the mandatory terms of the statute is that the former is void if beyond the revenue actually provided for one year, while the latter is valid if within the revenue which could have been provided. Mo.R.S.A. §§ 10454, Cont. art 10, § 10458, Mo. 12.—*Linn Consol. High School Dist. No. 1 v. Pointer's Creek Public School Dist.* No. 42, 203 Southwestern reporter 2d 721, Mo.

School District Claims

The designation of a school board as the insured in an automobile liability policy issued to a county board of education in Kentucky for the protection of school children and others from negligence in the operation of school buses, and permission for the maintenance of a suit against the board, is merely a procedural device for judicial determination of whether an alleged injury was the proximate result of negligence of the bus driver and, if so, for the measurement of liability on account thereof.—*Standard Acc. Ins. Co. v. Perry County Board of Education*, 72 F. Supp. 142, Ky.

Teachers

A teacher acquires tenure as an elementary or a high school teacher, depending upon whether he has devoted the majority of his time in the elementary or in the secondary field, and junior high school tenure is not recognized.—*Fafard v. Board of Education of City of New Rochelle*, 71 N.Y.S. 2d 400, N.Y. Supp.

A teacher's continuing contract pursuant to the Ohio state teacher's tenure act may not be terminated because of particular acts of misconduct prior to the date of the contract, but gross inefficiency of a teacher existing before the date of the contract and continuing to exist subsequent thereto is ground for the termination of the contract.—*Powell v. Young*, 74 Northeastern reporter 2d 261, 148 Ohio statutes 342, Ohio.

Where an Iowa school board discharged a teacher before the expiration of a contract without complying with the statute relating to discharge, the teacher has a right to maintain an action at law to recover damages.—*Chadwick v. Chickasaw Independent School Dist. of Bradford Tp.*, Chickasaw County, 28 Northwestern reporter 2d 32, Iowa.

Where a teacher was informed by a school director that every parent in the district was complaining of her method of teaching, the complaint was sufficient to warrant a discharge on the ground of incompetency.—*Chadwick v. Grant Independent School Dist. of Bradford Tp.*, Chickasaw County, 28 Northwestern reporter 2d 32, Iowa.

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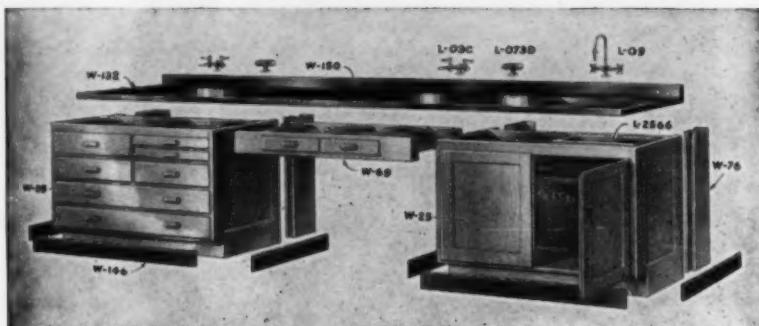
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School Finance and Taxation

► Champaign, Ill. The school board of Dist. No. 71 has adopted a budget of \$684,250 for the operation and maintenance of the schools in 1947-48. The sum of \$50,000 has been transferred to the educational fund which will take care of janitors' salaries for nine months of the year. The board has proposed a tax levy in the educational fund of \$557,230, for the building fund, \$70,000, and \$12,000 for the municipal retirement fund. In 1947 the board received reimbursement of \$22,719 from the state.

► Wayne, Mich. The Wayne township school board, during the summer months, effected the sale of \$500,000 worth of school bonds, the proceeds of which will be used for the construction of an addition to the junior high school. The bonds were sold at an interest rate of 2 per cent, as compared to a 5 per cent rate during the prewar years. This means a saving of \$240,000 in interest alone on a \$500,000 issue for thirty years.

► Oshkosh, Wis. The 1948 budget of the school board calls for \$1,316,978. The largest item is \$905,819 for instructional expenses. The tax levy for school purposes has been set at \$844,313.

► La Crosse, Wis. The 1948 budget of the school board will raise the education tax by \$86,480. The total budget which amounts to \$1,091,165 represents an increase of \$116,381 over 1946-47.

► The board of education of Lincoln, Neb., has adopted a budget of \$2,534,152 for the school year 1947-48. The total estimated income for the general fund, capital outlay, bond interest, and bond sinking funds is \$2,422,682. The largest item

is \$1,369,750 for instructional expenses. The major item in estimated expense is the capital outlay fund which calls for \$67,290 for buildings.

► Beloit, Wis. The school board has prepared its 1948 budget calling for \$1,083,857, or an increase of \$224,424 over 1946-47.

► Denver, Colo. Supt. K. E. Oberholtzer has prepared a budget calling for \$12,222,645 for the operation of the schools in 1947-48. This is an increase of \$2,045,354, which will be financed by a four-mill increase in the school levy. The largest item is instructional costs which call for \$7,411,951, with an increase of \$1,101,774 for salaries.

► Savannah, Ga. The school board has adopted a budget of \$1,753,058 for 1947-48, which is an increase of \$300,000 over 1946-47. The largest item in the budget is \$1,216,565 for salaries of personnel. Capital improvements call for \$100,000.

► Eau Claire, Wis. The total school budget for the year 1947-48 is \$931,278, which is an increase of \$168,229 over last year. The board has requested \$722,828 in tax money, which is an increase of \$142,313 over 1946-47.

► Milwaukee, Wis. The 1948 school budget has been set at \$14,919,673, which calls for a tax rate of \$11.95 for each \$1,000 of assessed valuation. The 1948 tax levy will raise \$11,293,273, as compared to \$8,313,046 in 1946-47.

► Madison, Wis. The school board has adopted a budget of \$2,407,917 for 1947-48, which is an increase of \$303,567 over 1946-47. Salaries of teachers and other employees account for \$2,039,095, or 84.68 per cent of the total budget. Included is \$38,800 for teachers' annual salary increases.

► Janesville, Wis. The school board has adopted a budget of \$654,000 for 1948. An added \$60,000, or an increase of 12½ per cent, must be raised through taxation. Salary items account largely for the \$80,000 increase in the budget.

► The Public Education Association of New

York City and the New York State Educational Conference Board, in a joint report presented on November 6, have recommended an increase of \$103,000,000 a year in state aid to education in New York State. The report was written by Prof. Paul Mort.

In addition to advocating a rise in state aid, the report recommends a large increase in the local "equalization factor" to which state aid is added to provide a basic foundation program or standard of schooling. At present, each locality is providing its own school budget in the amount of 2.6 mills upon the full valuation of its real property.

In New York City, it is estimated that if the program were to go through as recommended, the city would get about \$44,000,000 additional state aid, as well as several millions more in the form of mandatory minimum local school appropriations. At present state aid is apportioned on the basis of \$100 a year for each weighted elementary school pupil, and \$130 a year for each secondary school pupil. Under the Mort program these standards would be doubled, with \$260 a year for every weighted pupil in grades 7 to 12.

► The New Jersey Teachers' Association, at its annual convention on November 7, held in Atlantic City, adopted a resolution asking the governor and the state legislature to levy new taxes to finance all state services, including a \$12,000,000 fund for aid to the schools. The teachers pointed out that state aid is necessary at this time to relieve the burden on the already heavily taxed New Jersey homeowner.

The teachers also made a demand that the minimum salary be fixed at \$2,500 in place of the present \$1,800.

► Omaha, Neb. A total budget of \$5,013,420 has been adopted by the school board for the year 1947-48. The expenditures in 1946-47 amounted to \$4,172,252.

School Board News

CLEVELAND BOARD CHANGES

Two newcomers to school administration in Cleveland have been elected and an incumbent re-elected to the board of education. Official results of the November election in that city showed that Joseph M. Gallagher, secretary to Congressman Michael A. Feighan of the 20th Ohio District, and Robert H. Jamison, a Cleveland attorney, had been elected to board seats. Re-elected for another term was Franklin A. Polk, who was first sent to the board by the voters four years ago.

Polk, Jamison, and John F. Morning, present members of the board, had been supported by a Citizens' School Board Committee. However, Morning, who was first elected four years ago and whose term will end December 31, was pushed out by Gallagher.

The board of education's 6-mill operating levy was approved, 158,799 to 69,615. The tax, 5½ mills of which is a renewal, will be levied for five years and will yield in that time \$8,980,000. Other school levies which were successful in these Greater Cleveland suburban communities were: Shaker Heights, Bay Village, Bedford, Elyria, Mentor, Solon, Richmond Heights, Sheffield Lake, Maple Heights and Olmsted Falls.

NEWS OF PHILADELPHIA SCHOOLS

Removal of the present board of school superintendents, if this is necessary to improve the schools, has been proposed by two Philadelphia judges. Judge Grover C. Ladner and Judge Byron A. Milner made the proposal at a luncheon of civic leaders and urged an investigation of the public schools. Milner, a member of the board of judges which appoints the board of public education, said he would ask the board at its December meeting to act on what he termed "the sad state of our schools." Morris E. Leeds, board of education president, answered the charges by saying that he would welcome a probe of the schools. He affirmed his confidence in Dr. Alexander J. Stoddard, school superintendent. Leeds said the problem of pupil placement and promotion is a complicated one and suggested that the investigating committee would have to be made up of, or at least guided by, expert educators who would know the situation not only in Pennsylvania but elsewhere.

The board of education needs between \$3,000,000 and \$4,000,000 to remedy the conditions for which it has been criticized for months, the special committee on pupil progress of the board has reported. Dr. Stoddard has expressed the hope that funds from the new mercantile and personal property taxes authorized by the state legislature will be sufficient to meet the deficiencies for which the board has been scored.

Commenting on that report Judge Milner said that if less money were spent on the board of superintendents and "faiderals inaugurated to impress the public there would be enough funds to concentrate on straight education." The pupil progress committee said the three or four million dollars are needed for more teachers for regular and remedial classes, an adjustment teacher for every elementary and junior high school and more than one for larger schools, expansion of the testing program, reinforcement of the psychological examining service, adequate supplies and equipment, more text and reference books, increased and improved building facilities, wider use of buildings, and more adult education.

As a result of the controversy steps are being taken to reconvene the Citizens' Committee on Public Education. During the recent session of the legislature delegates from 21 civic, business, labor, and teacher groups served on the committee when matters of more money for Philadelphia schools were under study.

The move to reconvene the Citizens' Committee was made by the Home and School Coun-



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cil, at the suggestion of Dr. W. D. Lewis, former deputy state superintendent of Public Instruction, and Dr. John N. Patterson, chairman and cochairman of the education committee of the Public Education and Child Labor Association. Mrs. Helen E. Carlin, president of the Home and School Council, with 163 member organizations made up of parents and teachers, says that the officers of the council have confidence in Dr. Stoddard and in the board of superintendents. At a meeting of the council Dr. C. Leslie Cushman, assistant superintendent of schools, said that teamwork and good will rather than charges and criticism were the need of the day. The schools committee of the board of education has approved a subcommittee report endorsing the pupil promotion policy of Dr. Stoddard. Joseph A. McDonough, secretary of the Central Labor Union, a member of the committee, voted against the report. He claimed teacher groups were not consulted as to the contents of the report. It was decided to have the report printed and distributed to all teachers, home and school associations, and

any group that may request a copy. The report insists that there is no 100 per cent promotion, that brilliant students are spurred to do their best, and that slower pupils required to live up to their abilities.

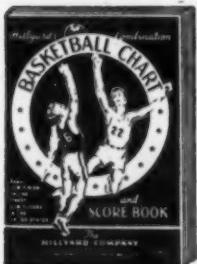
Philadelphia schools have put their full support behind President Truman's campaign to save food. Parents of the 18,900 pupils in homemaking classes were invited to attend classes with their children so that they could watch, firsthand, the preparation of meals to conserve meat, eggs, bread, and butter. Miss Helen C. Goodspeed, home-economics director, sent sample menus to teachers so that they could interpret the conservation program to their students.

The Philadelphia board of education went shopping in the war surplus mart recently and, as a result, got \$125,000 worth of band instruments for only \$5,000. The 700 instruments included 100 alto horns, 100 trombones, 150 clarinets, 80 flutes, 50 drum outfits, 50 cornets, 43 baritone horns, 44 piccolos, 37 sousaphones, 20 French horns, and 25 euphoniums.



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Teachers' Salaries

TEACHERS' SALARIES UP IN NEW MEXICO

The average teacher's salary in New Mexico, for the school year 1947-48 is \$2,708, which is an advance of more than \$1,000 in three years. State School Budget Auditor R. H. Grissom, of Santa Fe, in a recent report, showed that the average teacher's salary including principals and supervisors is \$2,780; and the average including superintendents is \$2,819.

The \$2,780 figure compares with \$2,300 last year, \$2,008 the year before, and \$1,735 for the 1944-45 school year.

The average principal's salary in the state was \$3,698; the average county superintendent's salary is \$3,439; and the average city superintendent's salary \$5,042.

Santa Fe county led the state with the highest rural school average of \$3,126, and with the highest in the county-wide table for city and rural schools, with an average of \$3,176.

PHILADELPHIA RAISES TEACHERS' SALARIES

The finance committee of the Philadelphia Board of Education has approved pay increases of \$200 to \$600 a year for public school teachers. The committee also voted 5 per cent increases to all other school system employees.

The teachers' average increase will be \$275, but some elementary teachers who have master's degrees will receive \$600 a year additional.

The new salary schedule will distribute in raises to 11,000 employees a million dollars for this year and \$2,670,000 in 1948. These lump totals were agreed to by the board last month and the committee authorized to fix the new salary schedule.

The raises will put the school board "in the red" for this year, but it is believed that the

additional state authorized taxes, effective January 1, will meet 1948 commitments. A previous increase of \$1,400,000 granted last January added to the new one creates a \$2,000,000 deficit for the 1947 budget.

TEACHERS' SALARIES

► Beloit, Wis. The school board has approved a suggestion of its special committee, calling for cost-of-living adjustments of \$300 for all members of the professional staff. Clerks and servicemen and women were given adjustments of \$240 per year.

► Madison, Wis. Annual salary increases of \$100 have been given to 430 teachers for the year 1948-49. Beginning teachers, with four years' college work and a degree will be paid \$1,500, plus a \$696 cost-of-living adjustment, or a total of \$2,196. The increases will raise the beginning salary next September to \$2,452.

► Milwaukee, Wis. The finance committee of the board of school directors has proposed two \$100 annual increases to the maximum salaries of teachers and principals. All educational department employees will receive the increased cost-of-living adjustment. While the minimum salaries for nondegree and degree teachers will remain at the established amounts, the maximums will go from \$2,500, \$2,800, and \$3,100, to \$2,700, \$3,000, and \$3,300 respectively.

► The average salary of teachers in Arizona schools for 1947-48 is \$2,950, which is only \$450 below the highest average in any state. The Arizona average is \$625 above the national average. The Arizona increase amounts to an average of \$545 more per teacher and will cost the state and counties an additional \$2,400,000.

► Meriden, Conn. The school board has adopted a new salary schedule, to provide new minimum and maximum salaries, and to become effective January 1, 1948. Beginning with January 1, all teachers will be advanced two steps in the schedule, giving them annual increments varying from \$300 to \$400. The schedule calls for \$2,000 minimum pay and \$3,500 maximum for teachers with four years of college. Increases of \$400 in the minimum hiring salary were given grade teachers with two to six years of college credits. Teachers will reach the maximum salary in 12 years under the schedule.

► Milford, Conn. The school board has given bonuses of \$200 to all teachers and other employees. In addition to the bonus, the board has adopted a new salary schedule, providing a minimum of \$2,000 per year for all teachers, and a maximum of \$3,800. Teachers with five years' college training will go to \$4,000 after 13 years' experience.

► Plant City, Fla. The school board has completed an upward revision of teachers' salaries for the year 1947-48. Teachers with an A.B. degree but having no experience will receive \$2,200 per year. Teachers with 6 years' college training and having 12 years' experience will be paid \$3,600.

► East Haven, Conn. A new salary schedule providing increases of \$600 per year has been adopted this year. The minimum salary for teachers with a bachelor's degree is \$2,000, with a maximum of \$4,100, to be reached by annual increments of \$150.

► Malden, Mass. The school board has adopted a single-salary schedule, with new maximum salaries to be reached by step-rate increases of \$120 per year. The maximum for all teachers, with a minimum of a bachelor's degree, will be \$3,640 per year. Those with a master's degree will reach a maximum of \$3,840, and those with a doctor's degree \$4,040 per year. Men teachers will be increased from \$3,470 to \$3,640 by increments of \$120 per year.

► Wood River, Ill. The school board has adopted a new salary schedule for the school year 1947-48, which calls for a minimum of \$2,200 for teachers with a bachelor's degree. Teachers holding a master's degree will be given advances with annual increments of \$100 up to \$3,600. The financing of the salary schedule was made possible by an increase in the tax rate approved by the voters last spring.



Typical classroom in Nathan Hale School shows extreme sky brightness; note dark interior and lack of light on ceiling.

Nathan Hale School, Toledo, Ohio uses almost identical classrooms for daylighting demonstration.

The old fenestration was replaced with Insulux Glass Block and a narrow vision strip. Light-colored desks, ceiling and walls help reduce brightness contrasts.



OWENS-ILLINOIS INSULUX GLASS BLOCK

Insulux Prismatic Block No. 351 was developed for accurate daylight control. Pattern utilizes four faces of block, turns light upward. Ceiling acts as huge reflector to redirect light downward.

Advanced lesson in classroom daylighting

Two rooms in the Nathan Hale School in Toledo, on the same floor, facing the same direction, were chosen for this demonstration in classroom daylighting. Photographs of both were taken on an overcast day providing approximately 750 foot-candles of vertical surface illumination.

Room on upper left shows the method of daylighting typical in a vast majority of school classrooms. (Decoration obviously is not up to standard.) All pupils in the room are subjected to a large area of high brightness. (The average sky brightness through windows here is 1,500 foot-lamberts.) This area occupies a large part of the visual field for children nearest the fenestration. For those farther away it occupies a smaller portion of the visual field, but the contrasts with task brightness are much higher. Contrasts between the sky and tasks on desks farthest from the light are about 100 to 1. This is much beyond the limit of what may be tolerated.

Room on lower left has been redecorated and refinished in light colors. Insulux Prismatic Glass Block, No. 351, has been installed above a 30-inch-high vision strip.

This prismatic block redirects the greater proportion of its transmitted light upward toward the ceiling. It distributes it broadly over the ceiling. At the same time it helps to shade the child's eyes from direct sky brightness. It reduces this brightness by about ten-fold, thus the panel brightness here is from 125 to 150 foot-lamberts. By this reduction the glass block panel has reduced the maximum contrast between minimum task brightness and the brightness of the principal light source to about 10 to 1—a ten-fold reduction.

← (This is the remodeled school classroom. Conditions in the room would be somewhat better and contrasts would be lower if the glass block panels were not interrupted by wall areas at front and rear and in center of the outside wall.)

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School Building News

► Wabash, Ind. The school board has voted to establish a reserve building fund. The money raised will be invested in U. S. government bonds.

► Gary, Ind. The school board is facing difficulties in financing its huge school-building program due to high building costs. The board has received almost prohibitive bids for the construction of two new schools to replace portables. Supt. Charles D. Lutz, in commenting on the situation, said that if the bids are any criteria, the building program will have to be sharply curtailed.

► McFarland, Calif. The board of education has begun the construction of a four-classroom unit, to include two lavatories, a great deal of cupboard space and closet facilities, and a new type of sinks. The total cost of the unit will reach \$81,500. The new unit is intended to provide additional housing to meet a large increase in school enrollment.

► Houston, Tex. The school board has received bids for the construction of a 52-room junior high school building, to cost \$1,957,000. In addition to classrooms, the building will contain a gymnasium, a lunchroom, and an auditorium.

► Gilmore City, Iowa. The voters of the consolidated school district have approved a school-bond issue of \$200,000 for a combined grade and high school.

► Port Arthur, Tex. The voters have approved a proposal, calling for a \$3,000,000 school-building program.

► West Palm Beach, Fla. The Palm Beach County board of education has recently completed the construction of a six-room addition to the Riviera Junior High School. The building will provide increased housing facilities to meet a

rapid growth in the Riviera area. New Negro schools are under construction for Lake Osborne and Pahokee. The board is completing plans for a number of white schools at Lake Harbor and West Gate, to meet a need for greatly increased facilities.

► Fall River, Mass. The school board has approved a 3-point school improvement program to relieve overcrowded conditions in the schools. The board will shortly select a site for a new school to take care of the immediate and projected growth of the school population.

► Iowa City, Iowa. The school board has voted to purchase additional insurance in the amount of \$230,000. The insurance will be arranged in five separate policies, ranging from one to five years, in order to stagger the expense load.

► New York, N. Y. The board of education has made provision in its 1948 budget for six new schools, in addition to the 18 listed in the capital-outlay budget. The board has asked that funds for school building projects for next year be increased from \$1,000,000 to \$3,000,000.

► Atlanta, Ga. The school board has established top priority for the construction of the Sylvan Hills High school to cost \$550,000. The new building is part of a proposed \$9,000,000 building program and will provide accommodations for 750 pupils.

► Plant City, Fla. A school-bond election has been called for January 1, 1948, to vote on a bond issue of \$1,200,000 for a high school building. The school board has prepared a number of spot maps of the several attendance areas as an aid in locating future sites for new school buildings.

► Champaign, Ill. The school board of District No. 71 has under construction a new addition to the South Side School, which is expected to be completed in December. Construction work on the Switzer School will be started early in the spring of 1948. The board will shortly begin

preliminary studies of the type of building to be added to the present senior high school. The new building will contain a modern cafeteria, music rooms, and other units now housed in the present senior high school.

► The New Mexico State Survey Board has begun a year-long appraisal of school building facilities, with the appointment of Dr. John E. Brewton, of Peabody College for Teachers as director of the work. Dr. Brewton, who will have his office in Santa Fe, will be assisted by professional people and laymen who will be invited to make suggestions. The report on the survey will be completed and presented in October, 1948.

► Winder, Ga. The school board has completed the erection of an athletic field, at a cost of approximately \$30,000. The equipment includes new stands, new lighting system for games, and improvements to the playfield area.

► Rhinelander, Wis. The school board has decided to set up a reserve fund for the construction of new school buildings.

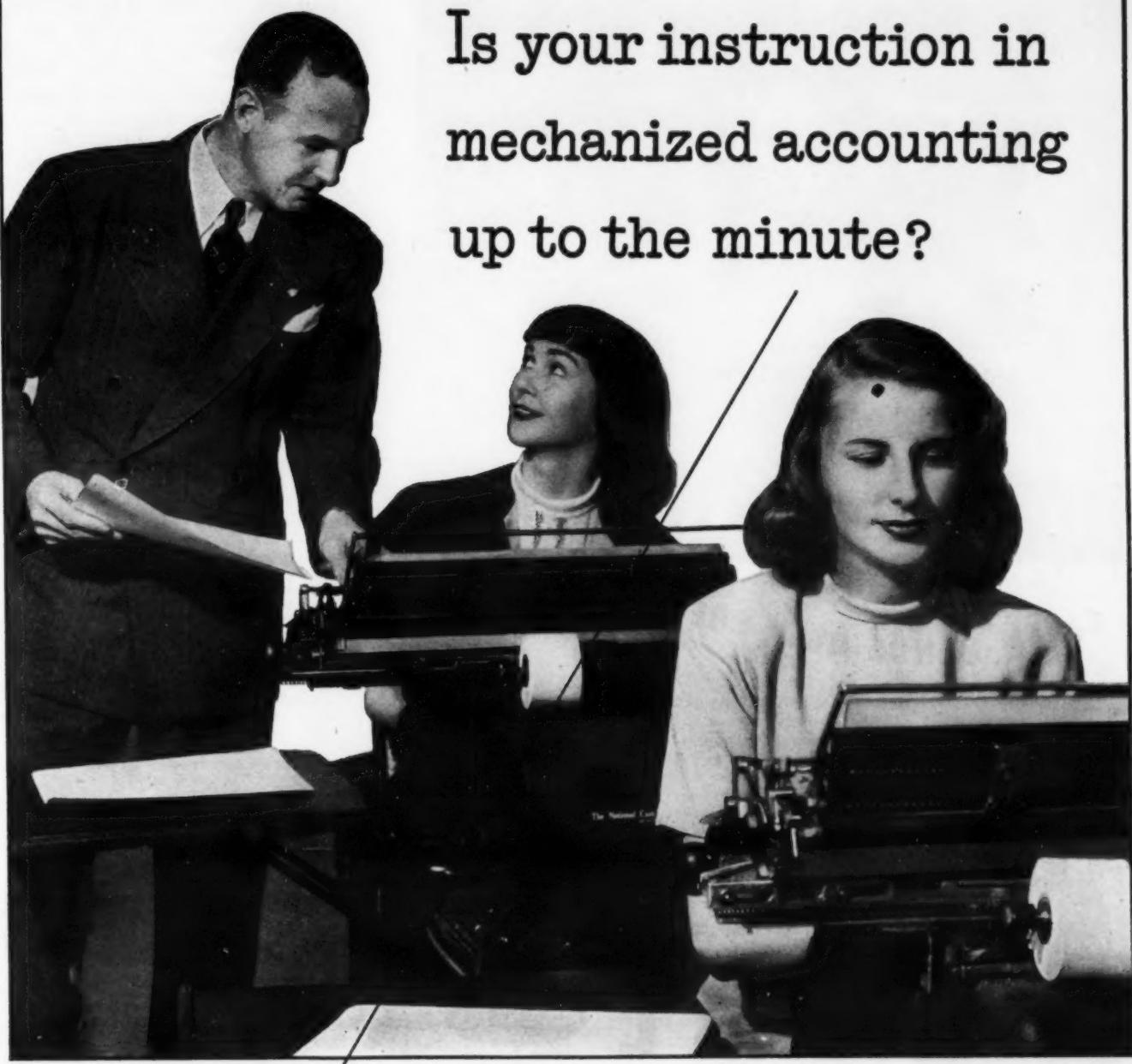
► Cicero, Ill. The school board has voted to proceed with plans for a new school lighting program, to cost approximately \$45,000. The program will be carried out over a period of several years, and the work will be done during the ensuing vacation periods.

► Hutchinson, Kans. The school board has begun plans for the construction of the Fourth Avenue School, estimated to cost \$300,000.

► Marshalltown, Iowa. The school board has decided to increase the insurance on school buildings by 20 per cent. The action was taken following a local appraisal of the school plant.

The question of safety in school buildings has been brought to the attention of the board. An order was issued, directing school principals and janitors to watch for possible fire hazards and to devise means for preventing fires. Regular fire drills are held and all buildings are equipped with two stairs.

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WORD FROM WASHINGTON

(Concluded from page 45)

complete a three-hour science aptitude test in partial fulfilment of the requirements of the Science Talent Search, sponsored annually since 1942 by Westinghouse Electric Corporation and Science Clubs of America, in an effort to discover and nurture scientific talent in American youth and to encourage those gifted to undertake careers in science.

This year examination day will fall on December 1, but the Science Talent Search Test may be taken later in the month provided the papers reach Washington by the closing date—the twenty-sixth of December. At that time each contestant is also required to sub-

mit scholastic and personal records as well as an original essay of about 1000 words on "My Scientific Project."

The 300 top ranking contestants selected for awards will be recommended to colleges, universities, and technical schools for scholarship consideration. This group will later be narrowed down to 40 finalists who will each win five-day trips to Washington, where they will participate in a Science Talent Institute in February, hear reports from leading American scientists, and receive Westinghouse Science Scholarships totaling \$11,000.

More than 1600 entrants during the past six years have been offered scholarships as a result of their standing in the Science Talent

Search, including both Westinghouse awards and funds from other sources. Moreover, a movement that started three years ago in Virginia and Tennessee to set up State Science Talent Searches paralleling the National Science Talent Search has since spread to Alabama, Georgia, Louisiana, Illinois, Iowa, Pennsylvania, and Montana, assuring students from those states a double chance at winning scholarships. After judging, entries in the national contest are turned back to the Academy of Science in the state concerned for consideration in the state competition. Scholarship awards for State Talent Search winners are provided through efforts of local industrial, scientific, and civic groups. Details of the Seventh Annual Science Talent Search may be obtained from Margaret E. Patterson, secretary of Science Clubs of America, at 1719 N Street, N.W., Washington 6, D.C.

Personal News**DR. S. L. SMITH RETIRES**

Dr. S. L. Smith, who has held the office of provost emeritus for Peabody College, has retired as of September 1, 1947, and will devote his time in the future to acting as consultant in school-plant problems and facilities, particularly in Southern communities.

Dr. Smith was one of the earliest advocates of better schoolhousing in the South and became widely known as director of the Department of the Julius Rosenwald Fund, which planned and subsidized the erection of 5358 Rosenwald schools, costing \$33,000,000, and furnishing a pupil seating capacity of 663,000.

Dr. Smith's activities have enabled the Southern states to establish divisions of schoolhouse planning in 15 states, and he has been widely active in assisting Southern local school systems to plan buildings on the elementary and secondary level.

He will continue to make his office at Peabody College, in Nashville, Tenn.

MARCUS AARON LEAVES PITTSBURGH BOARD

Marcus Aaron, one of the best known members of the board of education of Pittsburgh, Pa., retired as a member of the board on October 28. Mr. Aaron who is 78, had been on the board since it was set up 36 years ago; and served as its president from 1922 through 1942. He had recently refused to take another six-year term.

Mr. Aaron had helped to build the Pittsburgh school system into one of the best in the nation. In a letter of tribute to Mr. Aaron, the judges of the Common Pleas Court expressed regret that he could no longer serve as a member of the board. They wrote: "The judges are deeply conscious of the real contribution that you have made to the cause of education in the city through years of unselfish service. It was your influence which helped to shape educational policies in the city and made the schools outstanding."

During his 36 years on the board, he waged many battles against real estate interests and politicians to build up the city school system and to keep it free. He constantly fought movements by real estate interests to reduce school taxes and insisted that cutting down school costs was false economy.

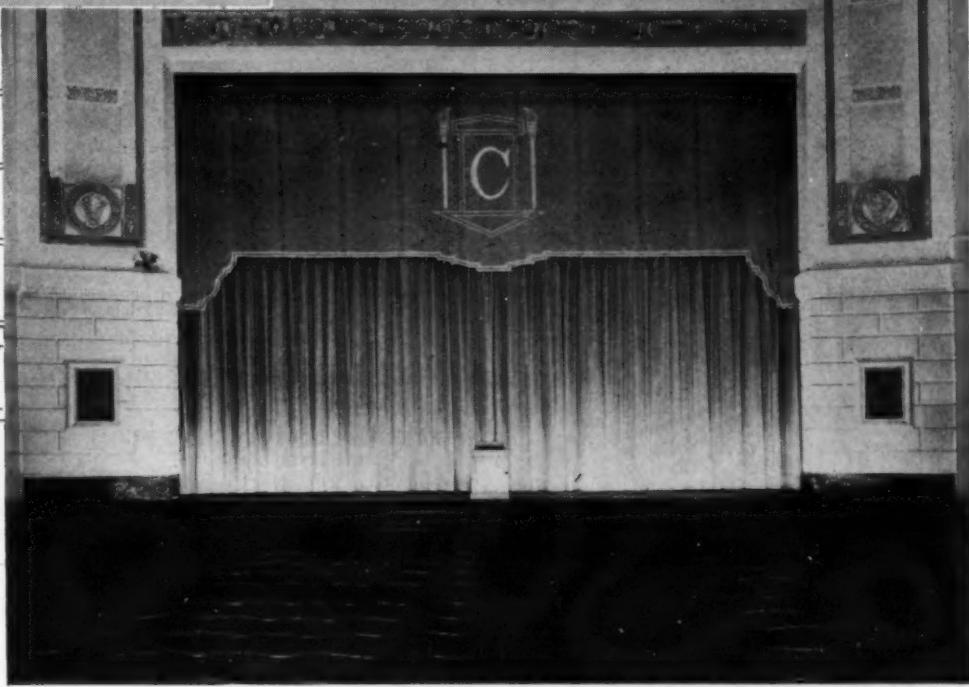
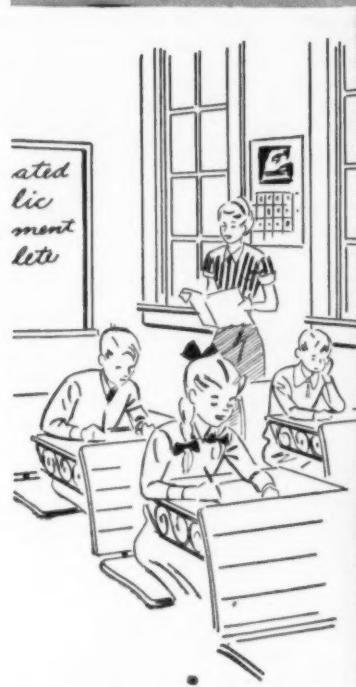
He has been actively identified with civic and business affairs for many years, and is president of the Homer Laughlin China Company, one of the largest pottery concerns in the world.

NEWS OF SCHOOL OFFICIALS

- Mrs. MYRNA GAINSFORTH has been elected secretary of the school board at Ogallala, Neb.
- Mr. KRAMER has been elected secretary of the school board at Swea City, Iowa, to succeed J. J. Anderson.
- GEORGE B. CLARK has been elected president of the school board at Rocky Hill, Conn.
- JOHN B. SLINER has been elected president of the school board at Branford, Conn.
- EDWARD A. WALL has been elected president of the school board at Hamden, Conn.
- PAUL L. MILLER has been elected president of the school board at Cromwell, Conn.
- DR. K. S. HUNT has been elected president of the school board at Griffin, Ga. ENNIS PARKER is the new member of the board.
- SUPT. MILES KOVARIK has been elected secretary of the school board at Schuyler, Neb.

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School Board Conventions

SCHOOL BOARDS REQUEST MORE STATE AID

The New York State School Boards Association, which met October 27 to 28 at Syracuse, adopted a resolution setting aside the week of November 9 as a time for home town meetings to explain to citizens the fiscal crisis facing public school education in the state and urging the necessity for additional state aid. The Association called upon the state legislature and Governor Dewey to increase the state aid to \$103,000,000 and to relieve cities from the present tax limits for education.

The speakers at the convention included Mr. Charles D. Breit, who urged closer co-operation in the state and local tax programs, and Dr. Paul R. Mort, who urged immediate action on the increase of state aid. State Comptroller Frank C. Moore urged that local communities should seek local funds for education and should lean less on the state and federal governments. State Education Commissioner Francis T. Spaulding declared that it is of the greatest importance that local income for the schools be the primary means of school support.

The Association elected as its president for 1947-48, Clifton B. Smith of Freeport; the vice-presidents included F. Gilbert Gregory, Hamburg, Cyrus Highley, Norwich, J. Robert Chalmers, Williamsburg; and Dr. Clyde B. Moore, Ithaca, treasurer.

MONTANA SCHOOL BOARDS TO MEET IN KALISPELL

The Montana School Boards' Association met in Kalispell, on November 17 and 18. President H. L. Stamp, of Miles City, presided at the sessions.

The meeting was high-lighted by talks on the most difficult problems which are facing school boards of the state. The members discussed the state's legislative program, and laid plans for an adequate school betterment program to be presented at the next legislative session in 1949.

CALIFORNIA SCHOOL TRUSTEES HOLD SUCCESSFUL MEETING

The California School Trustees' Association and the California School Superintendents' Association held a joint meeting in Sacramento September 30-October 1. It was one of the best meetings in the history of the Association, the attendance was splendid, and representatives from every section of the state were present.

Governor Warren, speaking before the members, said that the best hope for the survival and bulwarking of the American system of free government depends on the way the American people conduct their government. There must be a crusade for democracy in the country, he said, and the best place to do this is in the public schools. The governor called for continued and expanded programs of adult education.

The Association adopted 11 resolutions. It approved the type of organization exemplified by the California Teachers' Association and its affiliated groups; requested that legislation be sought to provide facilities and means of public information concerning school board policies, the educational program, and classroom instruction; suggested a continuation of the study to secure amendments to the tenure law, to effect a just and efficient procedure for the discharge of incompetent teachers; recommended a more thorough and complete counseling service for the teaching profession; pledged the members to continue to recognize their sacred responsibility to the schools so that they may maintain and foster the high ideals and traditions of the American way of life; approved federal aid to education with certain "definite restrictions"; approved compulsory military training provided such instruction is given through the public schools; urged boards of education to co-ordinate

and co-operate with other public and private agencies in planning community recreation programs and in furnishing adequate school personnel to supervise such facilities; and expressed its appreciation for the outstanding service rendered by Senator Slater in promoting the cause of education.

The Association, at its business session, elected officers for the year 1947-48: president, R. E. Bossard, Alameda; first vice-president, J. Paul Elliott, Los Angeles; second vice-president, C. Stanley Wood, Oakland; secretary, Mrs. I. E. Porter, Bakersfield.

IOWA SCHOOL BOARDS ASSOCIATION MEETS IN DES MOINES

The Iowa Association of School Boards met October 15 to 17, in Des Moines, with 700 members and school administrators in attendance.

In a panel discussion on legislative needs of the schools, speakers recommended working toward an immediate goal of 25 per cent support from state aid, with a long term goal of 50 per cent. Cameron Ross, of the State Education Department, recommended that ceilings on tuition be removed and that tuition be charged on a cost per pupil basis. Paul Norris, director of transportation in the state department, called transportation laws snarled and garbled and suggested that they be repealed and replaced with new laws. Mrs. Edna Lawrence suggested a bill providing state appropriations for special groups such as the deaf, blind, and mentally retarded. She said she is in favor of legislation providing that a certain percentage of sales and liquor taxes be allocated to the schools. Roger Fleming presented the stand taken by the schools and the Farm Bureau that state income taxes be kept at the 100 per cent level of the present rates, and that this revenue be channeled to school aid.

A number of other panel sessions were held on school building and construction and on county school administration.

Dr. Calvin Grieder, of Boulder, Colo., spoke at the banquet on "Your School Board Organization."

The Association elected officers for the year 1947-48 as follows: president, Harold J. Nachtmann, Dubuque; first vice-president, Roy E. Havens, Logan; second vice-president, Carl C. Kesler, Cedar Rapids; treasurer, Harry L. Gross; executive director, Don A. Foster.

PERSONAL NEWS

► Miss VIRGINIA M. SMITH has been appointed coordinator of distributive education for the schools of Covington, Ky. She will organize the work in an expanded program of distributive education between the schools and local department stores.

► WILLIAM GOBLE, superintendent of schools at Greenfield, Ind., died on October 25, after a service of 47 years in the school field.

► Supt. C. C. LOEW, of Lawrenceville, Ill., has been appointed a member of the state committee on secondary schools of the Northcentral Association of Colleges and Secondary Schools.

► HOWARD R. CROMWELL has accepted the superintendency at Glendale, Ky. He succeeds J. A. McKnight, who has taken a similar position at Maumee, Ohio.

► WILEY SIMMONS, formerly superintendent of schools of Dist. No. 122, Oak Lawn, Ill., has resigned and accepted the position of first assistant county superintendent of Cook County, Ill. Mr. Simmons, who retired August 4, had completed a service of 22 years as head of the Oak Lawn schools.

► JOSEPH M. BECKMAN, a member of the faculty of the Hughes Veterans' Center, has been appointed by the Cincinnati board of education to the position of coordinator of school building planning and assistant to Supt. Claude V. Courter. Mr. Beckman will handle the details incident to the co-ordination of school building planning.

► PETER JENEMA has assumed his duties as superintendent of schools at Hazel Park, Mich. He succeeds John E. Erickson.

► GLENN O. DE ATLEY has succeeded G. A. Smith as superintendent of schools at Wood River, Ill. He was formerly principal of the junior high school in the same city.

► The board of education of District 102, La Grange, Ill., has reappointed J. E. PEASE as superintendent for a new two-year term. Mr. Pease is beginning his eighth year in La Grange.



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Wyandotte Wax is easy to apply . . . safe to walk on . . . easy to clean. It lengthens the life of floors and keeps them looking bright and attractive.

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WE CONSOLIDATED OUR PROBLEMS

(Concluded from page 29)

assessed valuation of the property in the district has not gone up at a rate commensurate with the rise in costs and the increase in the pupil population of the district. There is still hope, however, that consolidation will justify itself from an economic standpoint. Not even the most rabid opponent of consolidation now contends that it has not provided a better educational program. There are many who do still believe that costs have risen as a result of consolidation. They lose sight of the fact that services are being extended to the former suburban elementary schools and that consolidation has resulted in a better opportunity for the boys and girls of this district. It is our sincere hope that when prices have leveled out, school costs are commensurate with school enrollment, and assessments have caught up with building, that those who voted for consolidation in the interest of economy, will not be disappointed.

SCHOOL NURSING IN A FEDERAL HOUSING PROJECT

(Concluded from page 38)

view project to observe health service in action. Each year has brought change and improvement, but there remain others to be accomplished. At the present time emergency cases, such as accidents or sudden severe illness, are placed on a cot in the nurse's room.

There should be an isolation room for this purpose. There is a great need for a more accurate means of auditory screening and a hot lunch program. But many Planview citizens have chosen to remain where health services, such as these outlined, are available. Time finds them seeking the school nurse for advice regarding their various family health problems.

PALM SPRINGS BUILDS A SECONDARY SCHOOL PLANT

(Concluded from page 42)

thus make the boundaries of elementary and high school districts coterminous. When such condition is achieved, the California school code makes unification mandatory with single rather than dual administrative controls for all grades from the kindergarten through the junior college.

The present assessed valuation of the Palm Springs Union High School District is approximately \$17,500,000. This is increasing rapidly each year. With a high school enrollment slightly over 300, this means that with respect to the wealth in assessed valuation back of each student in ADA, Palm Springs High School District is one of the wealthiest in California.

The trustees have served with few changes since the district was organized. Charles J. Burkett has served continuously as president of the board for seven years. The board is determined to have outstanding schools both with respect to staff personnel and school

plant. They have worked long and diligently on a master plan. They have done some first-class building, are doing more now, and are progressing assuredly toward a brilliant future in schoolhousing for students of Palm Springs.

SCHOOL BOND SALES

During the month of October, 1947, school bond sales, in the amount of \$35,540,000, were reported. The interest rate as of the end of the month was 2.3 per cent, the highest in several years. The largest amounts of bonds sold were in Georgia, \$7,750,000; Indiana, \$6,509,000; Maryland, \$10,285,000; Minnesota, \$1,420,000; and Texas, \$3,350,000.

During the same month, short-term paper and refunding bonds were sold in the amount of \$410,000.

The final complete report of school bonds sales during the month of September, 1947, indicates that the sales amounted to \$19,657,702. As of September 30, the average yield was 1.82 per cent.

SCHOOL-BUILDING CONTRACTS

During the month of September, Dodge reported contracts let, in 37 eastern states, for 257 educational buildings, at a valuation of \$42,848,000.

During the month of September, 1947, contracts for school buildings were let, in 11 states west of the Rockies for 7 buildings, at an estimated cost of \$1,725,225. Projects in preliminary stages were reported for 9 buildings, at an estimated cost of \$3,204,992.

During October, 1947, contracts were let for 8 school buildings, in west coast states, at an estimated cost of \$2,048,270.

During the same period, 12 buildings were reported in preliminary stages, to cost an estimated \$4,273,323.

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DITTO ANNOUNCES NEW DUPLICATING WORKBOOKS

Ditto, Inc., Chicago, Ill., has announced the addition of ten new workbooks to the Ditto line for use on direct-process or fluid-type duplicating machines. The ten workbooks include two pre-primers, a first-grade book, two phonics, two language books, and three arithmetic books.

The books are printed through Ditto direct-process carbon and may be reproduced up to 300 copies from one original. The pages are slip-sheeted to prevent offset and there is little or no rubbing. Ditto books are prepared by leading authorities in each of the fields covered and are carefully edited by an educational board.

Ditto, Inc., 2250 Harrison St., Chicago, Ill.

For brief reference use ASBJ-1201.

BRULIN'S GERMICIDAL SOAP

Brulin & Company have announced a nontoxic, nonirritating, and odorless germicidal soap which cleans and disinfects in one operation. It is a combination of high-grade scrubsoap into which a potent, odorless, nontoxic, and nonirritating germicide has been incorporated.

Brulin's soap contains a large percentage of a high grade, neutral coconut oil soap in combination with 2,2' dihydroxy 5,5' Dichloro Diphenyl Methane. This liquid may be diluted with water in the ratio of one part Brulin's soap to 16 to 20 parts of water. The solution should remain in contact with the surface to be treated for five to ten minutes to enable it to perform its germ-killing duty. Brulin's soap is intended for general cleaning and disinfecting and will be found convenient and economical in use.

Brulin & Co., Inc., 2939 Columbia Ave., Indianapolis 7, Ind.

For brief reference use ASBJ-1202.

OFFER TWO NEW ELECTRONIC HEARING AIDS

The Western Electric Company has announced two new all-in-one electronic hearing aids, designed to offer a choice of models to suit the individual requirements of the user. Model 65 has ample power for general users and performs well in the conversational ranges. The Super 66 has



Western Electric Hearing Aids.

high-power output required for severe cases and has a wide frequency response, as well as superior tonal quality for those desiring higher acoustical performance. A new feature is the molding of critical components in moistureproof blocks of plastic material to protect the instruments from excessive humidity, dust, and dirt. Both models are distributed through authorized Western Electric hearing aid dealers.

Western Electric Co., 195 Broadway, New York, N. Y.

For brief reference use ASBJ-1203.

VESTAL ANNOUNCES NEW ANTI-SLIP WAX

Vestal Laboratories has announced its latest product, Vesta Gloss, an antislip school floor wax, which is nontacky and produces a long-wearing finish which stands up under the heaviest traffic. Vesta Gloss is used on all types of floors, including terrazzo, asphalt tile, rubber tile, linoleum,

tile, wood, and composition. Floors treated with this finish are easy to maintain. Vesta Gloss is available in containers, ranging from 5-gallon pails to 55-gallon drums.

Vestal Laboratories, Inc., 4963 Manchester Ave., St. Louis 10, Mo.

For brief reference use ASBJ-1204.

VESTAL WAX REMOVER

The Vestal Laboratories have produced a wax remover, which will remove old wax without injuring the flooring. The new wax not only removes old wax film and floor oils, but it cleans, leaving a slight protective film. It can be used on all floors and is not injurious.

Vestal wax remover is available in containers, ranging from 5-gallon to 55-gallon drums.

Vestal Laboratories, Inc., 4963 Manchester Ave., St. Louis 10, Mo.

For brief reference use ASBJ-1205.

ACME SHEARS AND SCISSORS CATALOG

The Acme Shear Company, Bridgeport, Conn., has issued a Shears and Scissors Catalog, which covers all styles in the three lines made in the firm's factory, including Kleencut, Eversharp, and Acme.

In the catalog, each style is described and illustrated, pages are printed in color, and a style guide illustrates in half tones the various points, handles, and names of individual models.

Acme Shear Company, Bridgeport 1, Conn.

For brief reference use ASBJ-1206.

After the Meeting

A LETTER AND A POSTSCRIPT

In the minds of some school board members principals of schools have snap jobs. The following letter reproduced from the Evansville, Ind., Public School Bulletin, describes both sides of the picture.

"Dear Dad: I've been on my new job five weeks now, and I'm sure finding that being a principal is a cinch. All I had to do was talk loud and fast and let everybody in my building know who was shaking the big stick, and just like that I have the faculty, the P.T.A., and the students eating out of my hands. Yes, things are going my way."

"I've changed all the old routine. You see, some of those old boys do too much on the democratic process. Now, me, I use it only when I'm sure my teachers believe as I do anyway, and Dad I'm really getting results."

"Every one of my faculty is teaching a grade different from the one he or she taught last year. I felt that a new grade would make them less cocky, keep them busier, and consequently make them easier to handle. The second grade teacher came crying to me, 'Why I've never taught anything but second grade.' Immediately I asked her if her contract said anything about second grade."

"Yes, Dad, you needn't worry about my success as a principal. Why it's practically assured. Why even in the staff meetings held by the superintendent they ask me for the answers. It's really a great life, Dad. Your son,—ALFRED."

"P.S. Dad, please disregard all of the above. It's all talk. Sometimes my new job actually frightens me. I don't feel any differently than I did as a teacher and I just can't seem to get that big shot feeling and that 'lord of all I survey' look. My success is yet to be made. I realize that it can only be made with the sympathetic help of the teachers of my building and the sincere co-operation of the Evansville public schools staff."

School Business Executives

Suggestions for the Layout and Construction of Schools in Ontario, Canada

Compiled by J. A. G. Easton. Paper. Published by the Department of Education, Ontario, Canada.

This guide, which is not to be considered as complete or official, has been prepared to help start the thinking of architects and school authorities engaged in and seeking information on the planning, construction, and equipment of postwar school buildings. The book which is divided into four chapters, offers definite and quite complete data for approaching the problems involved in planning (1) rural public schools, (2) urban schools, (3) rural and urban separate schools, and (4) secondary and vocational schools. The objectives and organization of Ontario schools differ in some respects from corresponding schools in the States; there are climatic and economic considerations which affect the planning. The entire study reflects excellent insight and a wise approach to building planning, particularly the long-range use values to be sought in the over-all planning and adjustment of areas to large and small schools.

A Guide for Planning Elementary School Buildings

By W. A. Whitehead, Paul E. Spayne, W. R. Flesher, and T. C. Holz. Paper, 138 pp., \$2. Bureau of Educational Research, Ohio State University, Columbus, Ohio.

This important bulletin has been prepared for the use of school authorities on the one hand, and architects on the other, in studying the educational and the building planning for new school plants. The work is intended to provide the basic information on the problems involved, and still more important, to outline the procedure that will insure the completion of plans and ultimately of a building fully suited to serve postwar educational programs. The method recommended compels a careful study of various aspects of organizing and conducting a school, and of developing the individual classrooms and their instructional areas in harmony with present and future needs, and in connection with the total building plan that will serve an entire group of students.

The program requires the architect to provide the board of education and the superintendent with carefully prepared statements on a series of 17 major points in planning and construction which will be taken into account in the final plan. The architect is further required to report complete details concerning each of the types of rooms and other areas which are to be included in the building. He is requested to report on the total areas for each of the instructional, administrative, service, and other areas, to work out complete estimates of cost, and finally, to provide the results of a study of his plans from the standpoint of economy and efficiency. In other words, he is asked for a proof of the total economy of his entire proposed building.

The report is the outcome of some years of co-operative school-building planning in which local school authorities have helped the four authors in general community surveys for school-building purposes and individual building projects. While some aspects of the guide involve peculiarities based on Ohio practice and Ohio laws, the work as a whole is eminently constructive and practical, and can be used with outstanding success in any medium or large city.

Winning School Support at the Polls

Paper, 43 pp., \$1. Bulletin No. 7, September, 1947, of the Research Division, National Education Association, Washington 6, D. C.

This booklet summarizes practical suggestions gained from successful local campaigns for school bonds and tax levies, including slogans, advertising, speakers' programs, and publicity. The booklet will be useful for school boards and superintendents engaged in the planning of bond and tax levy campaigns.

Tax Institute Bookshelf

June-September, 1947. Nos. 14-15. Tax Institute, New York, N. Y.

The most complete bibliography of current materials on taxes, public debt, fiscal administration, etc. A must for the comprehensive school-business library.

Analysis of Single-Salary Schedules

Paper, 108 pp., 25 cents. Bulletin No. 3, October, 1947. Published by the Research Division of the National Education Association, 1201 Sixteenth St., N.W., Washington 6, D. C.

A report of a study of salary schedules, including statements of policy, placement of new appointees, conditions governing progress within the salary classes, and transition of present teachers from former salaries to the new salary schedule. The material shows the distribution by size of city, the scope and format of schedules, schedule provisions applying to teachers, principals, supervisory officers, and administrative officers. A suggested ideal salary policy is appended.

December, 1947

SCHOOL BOARD JOURNAL

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PUBLICATIONS**School Lighting Appraisal From Survey**

From September, 1947, Illuminating Engineering, 51 Madison Ave., New York 10, N. Y.

This article, prepared by C. T. Troy, summarizes a study of lighting conditions in Bradford County, Pa., schools. In the 345 classrooms inspected, it was found that many walls needed painting, there was insufficient illumination, there were too many blackboards. It was recommended that improvements be made in the room planning, seating, painting, shades, and artificial lighting. Excellent results were obtained in classrooms where repainting was done and fluorescent lighting was installed.

Financial Proposals for Schools in Ohio Districts**in 1947**

By John H. Herrick. Paper, 20 pp. Issued by the Bureau of Educational Research, Ohio State University, Columbus, Ohio.

A report of the special school levies and bond issues submitted to the voters by local school districts of the state of Ohio. A total of 109 school districts have submitted bond issues amounting to \$14,643,243. A total of 372 districts have submitted levies, the average millage amounting to 2.91. Renewal of levies amounted to 185.

A Campaign Guide

Paper, 16 pp. Issued by the U. S. Office of Education, Washington, D. C.

A guide for advertising intended to strengthen the support of American education. Prepared by the Citizens' Federal Committee on Education and the U. S. Office of Education, it depicts by story and picture, the work of the Advertising Council in utilizing the resources and facilities of advertising to arouse the American people to the vital importance of education.

How to Sell to the Government

Paper, 32 pp., 50 cents. Published by the Journal of Commerce, 63 Park Row, New York 15, N. Y.

A reprint of a series of articles, published by the Journal of Commerce, which aims to take the mystery out of selling to the government. It outlines a simple procedure for bidding and provides businessmen with a practical reference manual as well as an everyday working tool. A comprehensive list of sales opportunities is provided, giving the name of the agency, the bid number, closing dates, items wanted, and where they are to be delivered. The number of different items is rather large and embraces raw materials, finished products, and a host of special services.

Teachers' Salary Tabulation for 1946-1947

By Arvid J. Burke. Paper, 6 pp. Bulletin No. 2, October, 1947. New York Teachers' Association, 152 Washington Ave., Albany 6, N. Y.

A study of teachers' salaries in the state of New York, showing increases due to higher schedules, local adjustments during the year, and emergency increases provided by the state since January, 1947.

Financial and Enrollment Data for Ohio Village**School Districts, 1947**

By John H. Herrick. Paper, 12 pp. Issued by the Bureau of Educational Research, Ohio State University, Columbus, Ohio.

This report, the twenty-first consecutive one of its kind prepared by the Bureau of Research, indicates what exempted village districts are submitting special school levies and school-bond issues, and gives the details for these issues. During 1947, eight villages submitted school-bond issues in the amount of \$1,764,550. A total of 27 villages submitted special school levies, and the average millage amounted to 2.74. The average millage of operating levies was 4.06 and the total number of districts was 86.

Supplement to National Directory of Commodity**Specifications**

Cloth, 322 pp., \$2.25. Superintendent of Documents, Washington, D. C.

This 1947 revision brings the widely used list of commodity specifications up to date.

COMING CONVENTIONS

Dec. 4. Indiana Town and City School Administrators' Association, at Indianapolis.

Dec. 28-29. Southeast Regional Conference, N.E.A. Department of Classroom Teachers, at Atlanta, Ga.

Dec. 28-30. Illinois Education Association, at Peoria. I. F. Pearson, secretary, Springfield.

Dec. 29-31. Modern Language Association of America, at Detroit, Mich. Headquarters, Statler Hotel.

Feb. 5-6. Minnesota State School Board Association, at Minneapolis. W. O. Barbo, secretary, Braham, Minn. Headquarters, Nicollet Hotel.

Feb. 6-7. Pennsylvania State School Directors' Association, at Harrisburg. P. O. Van Ness, secretary, 222 Locust St., Harrisburg. Headquarters, Penn-Harris Hotel.

Feb. 15-18. Association for Supervision and Curriculum Development, at Cincinnati, Ohio. Gertrude Hankamp, secretary, 1201-16th St., N.W., Washington, D. C.

Feb. 21-25. National Association of Secondary School Principals, N.E.A., at Atlantic City, N. J.

Feb. 21-26. American Association of School Administrators, at Atlantic City, N. J.

Feb. 25-27. Annual Conference of Adult Education, at Atlantic City, N. J.

Advertisers Products and Services

Advertisers in this index are given a code number in addition to the page number on which the advertisement appears. Refer to the advertisement for product or services available. Write direct to advertiser or use the coupon in requesting information from a number of advertisers.

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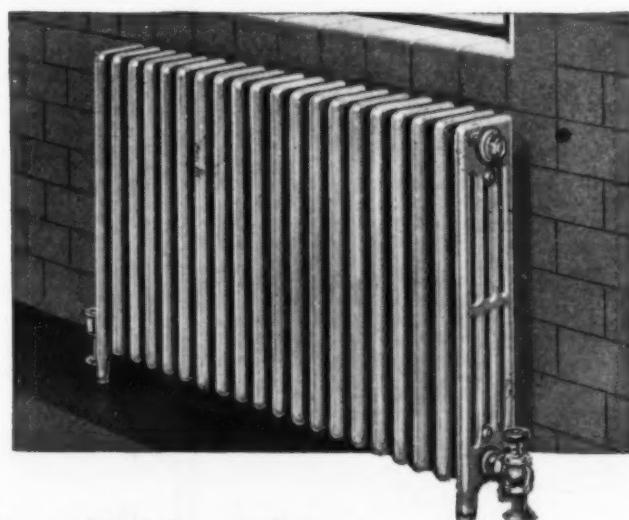
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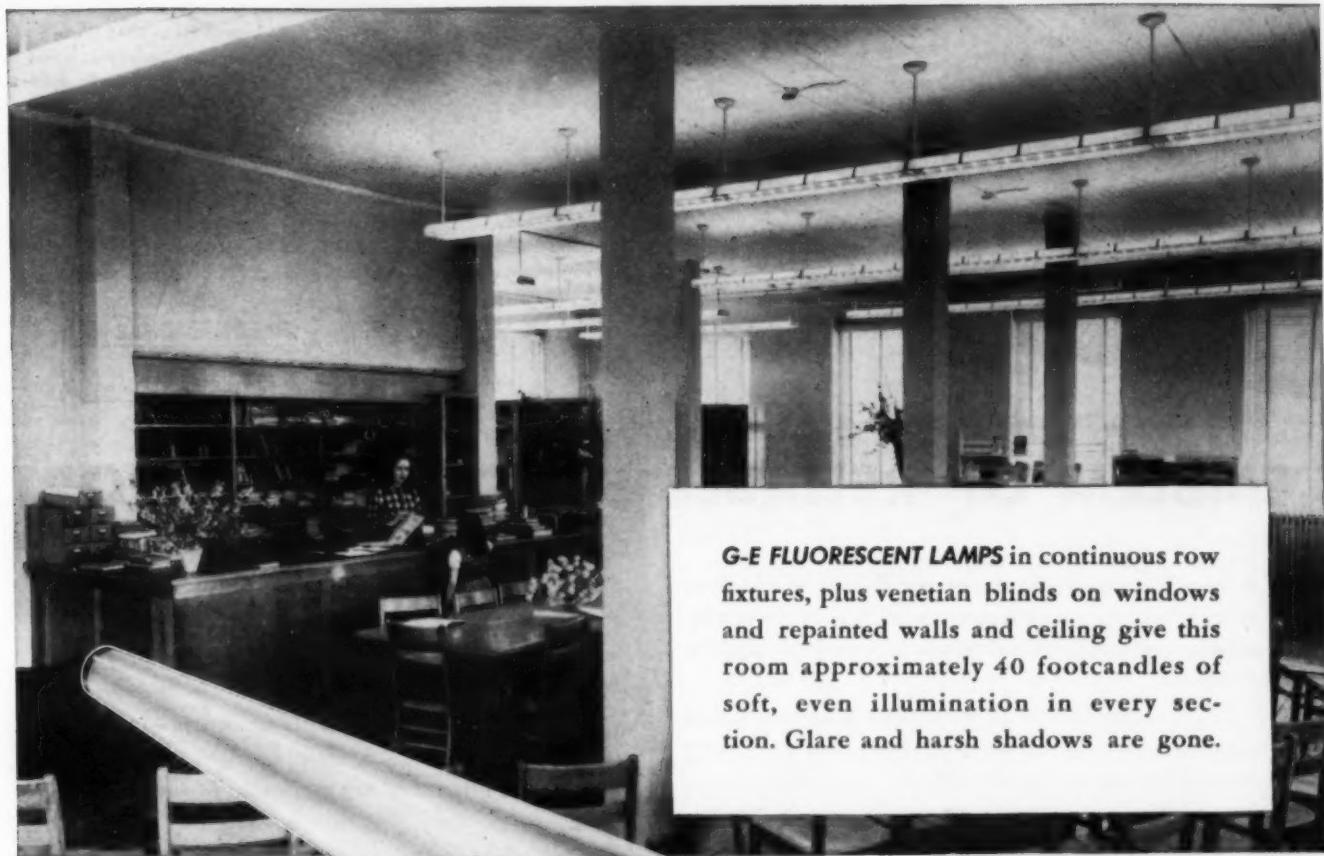
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It sounds far-fetched, doesn't it? But in most cases G-E Lamps give far better indoor illumination than daylight.

FOR EXAMPLE, the library of this Florence, Ala., school had a range of from 50 footcandles of light near the windows to a mere 2 footcandles at the opposite side of the room. Bare light bulbs on the ceiling provided too little help.

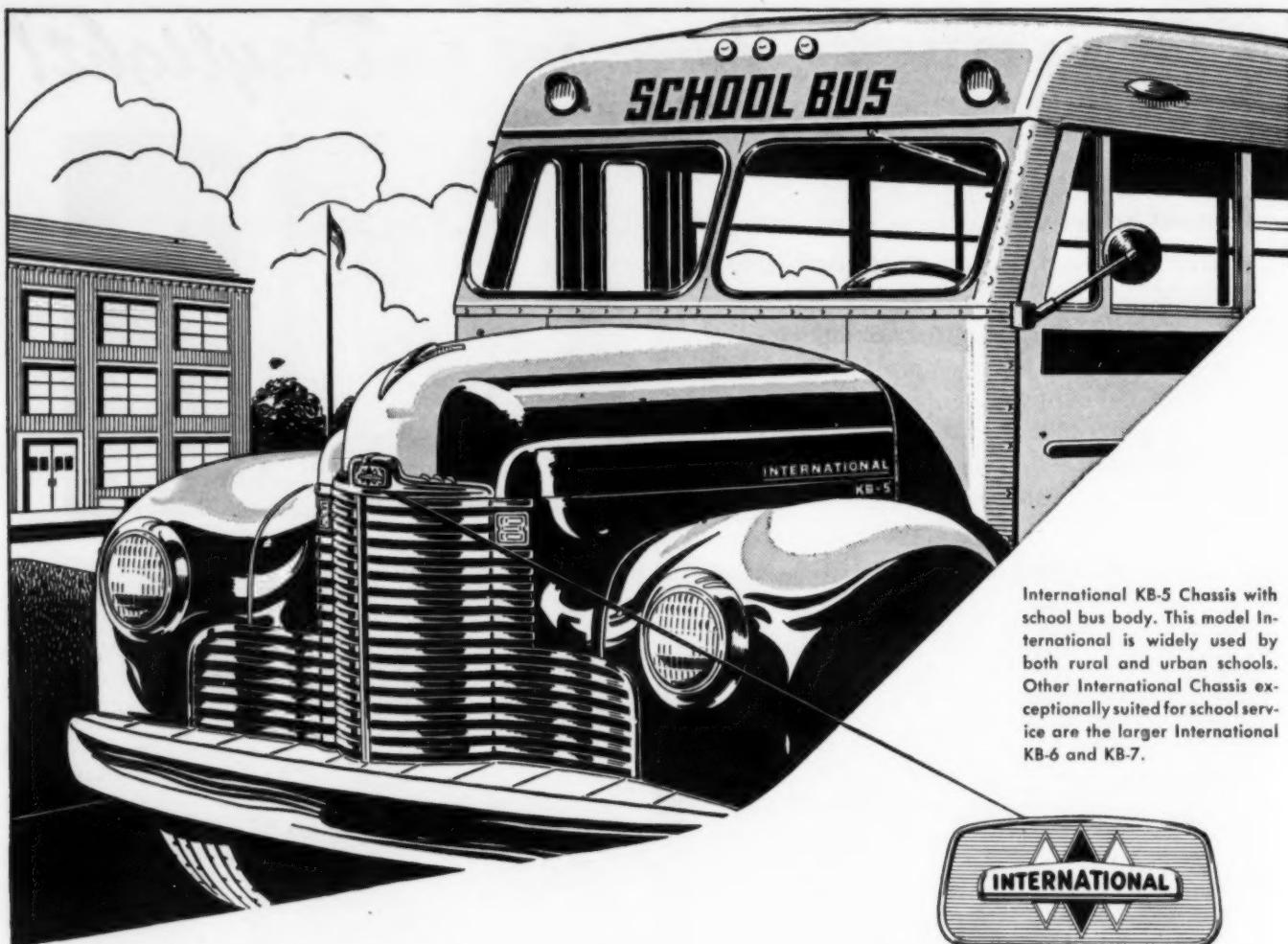


G-E FLUORESCENT LAMPS in continuous row fixtures, plus venetian blinds on windows and repainted walls and ceiling give this room approximately 40 footcandles of soft, even illumination in every section. Glare and harsh shadows are gone.

WHEN ORDERING LAMPS, for relamping old fixtures or complete relighting, insist on G-E LAMPS so you get the benefit of the constant research at work to make G-E Lamps



G-E LAMPS
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International KB-5 Chassis with school bus body. This model International is widely used by both rural and urban schools. Other International Chassis exceptionally suited for school service are the larger International KB-6 and KB-7.



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- School buses transport nearly 5,000,000 children every school day. And International School Buses play a large part in the safe dependable transport of these children.

Yes, in every section of the United States you'll find International School Buses dependably at work. Among them are many models of past years, faithfully delivering the long, trouble-free service for which Internationals are famous.

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These new KB Internationals are the finest values in

New sound motion picture in full color, "A Way of Life," featuring the modern consolidated school and school transportation, now available. See your International Dealer or Branch for showings.

Tune in James Melton on "Harvest of Stars!" NBC Sunday

International School Bus history—with new styling that makes them outstanding on any road or highway; with mechanical excellence that makes a definite contribution to the school budget.

You'll want complete details of course—in the interest of safe, dependable transportation for your children; in the interest of low maintenance and operating costs.

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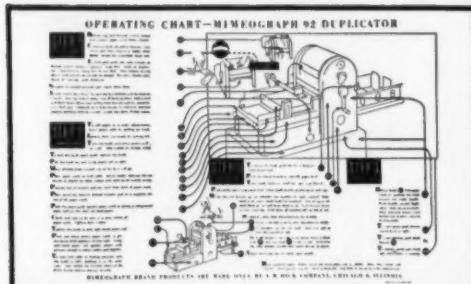
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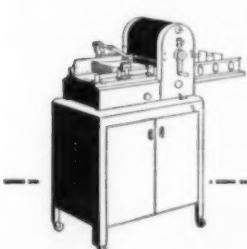
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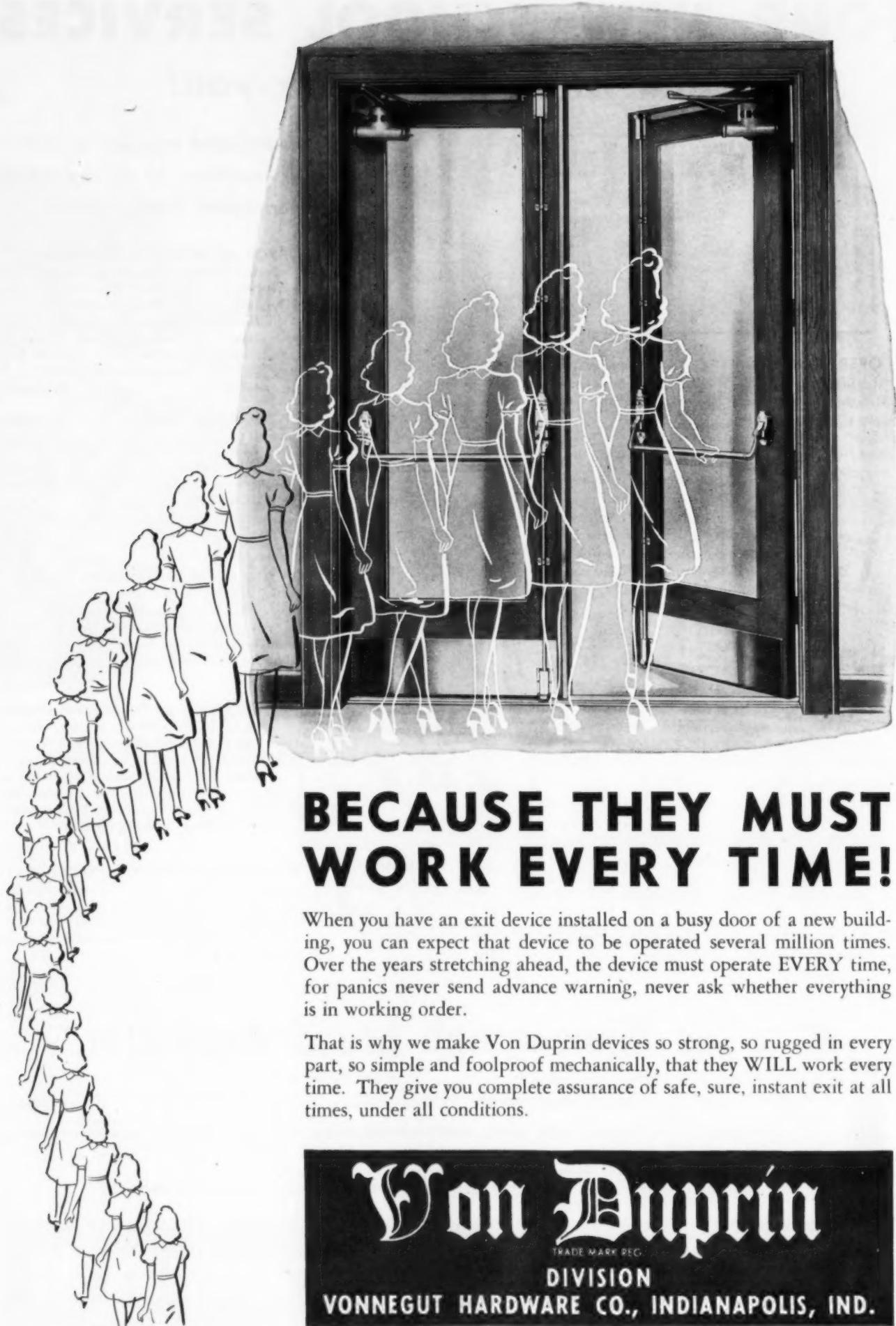
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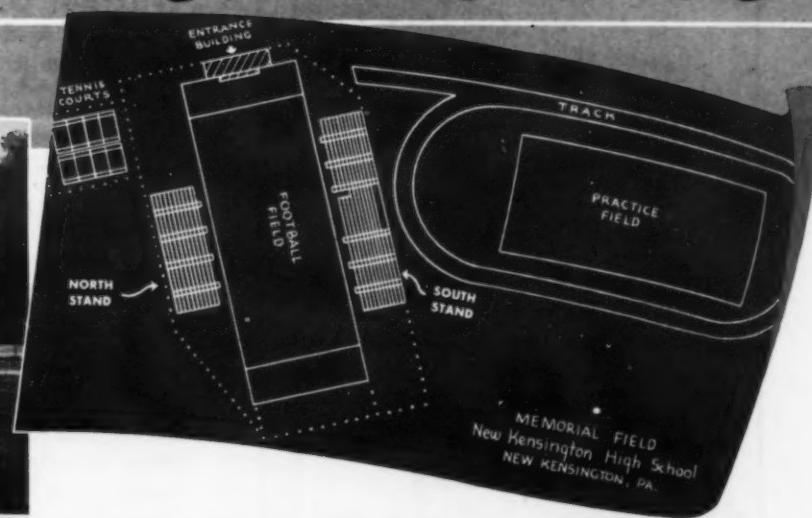
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Top—South Stand, with enclosed dressing, locker and shower facilities built under weatherproof deck. Capacity 3,040.

Above—North Stand. Present capacity, 3,280.

Diagram—General layout, showing location of Stands, football field, gate and refreshment house, practice field, track, and tennis courts.



Typical of modern developments in high-school athletic facilities is the recently-completed Memorial Field project at New Kensington, Pa. Here, two Pittsburgh-Des Moines Steel Deck Grandstands with a present total seating capacity of 8,320 persons highlight the complete installation—providing permanence, safety and excellent seating comfort, plus unit-construction adaptability for future extension of capacity. *May we send you our Grandstand Brochure?*

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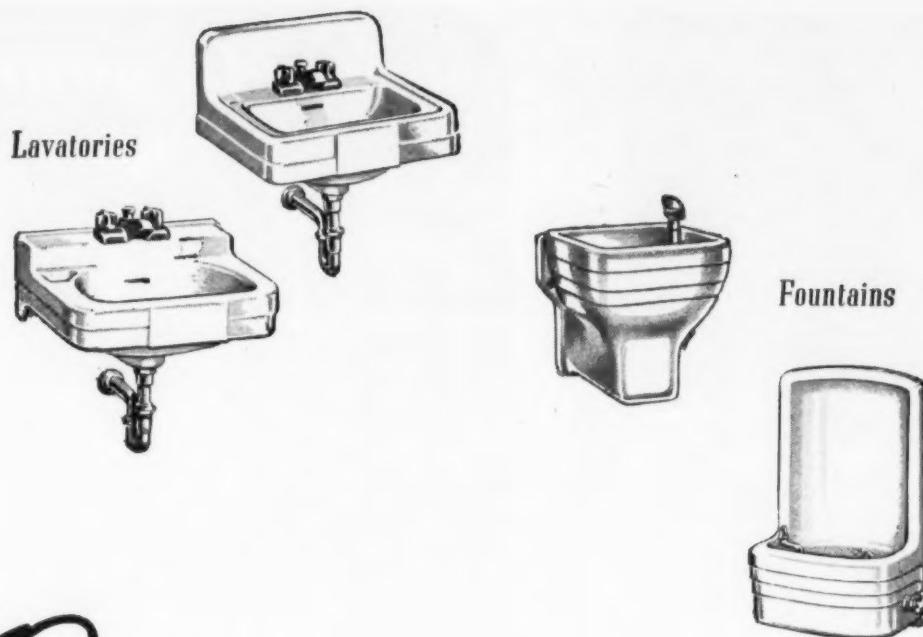
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A Superior Agency for Superior People
We Register Only Reliable Candidates
Services Free to School Officials
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December, 1947

SCHOOL BOARD JOURNAL

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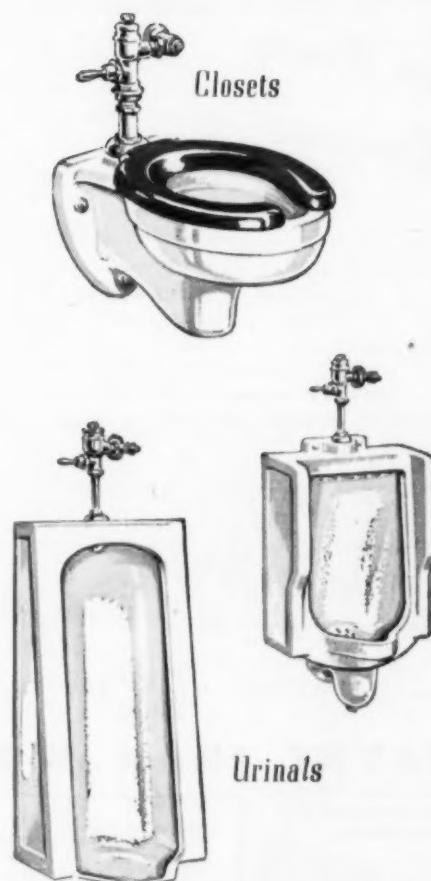
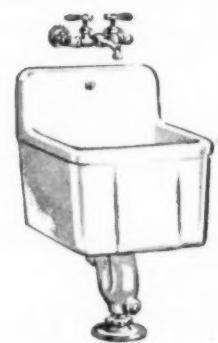
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No matter what you require in school plumbing, you'll find it in the broad Crane line.

Each Crane fixture comes in a size and style to meet the varying needs of grade, junior, and high schools . . . each is built to withstand years of hard school usage.

The quality you have always identified with Crane appears in such new features as finger-tip *Dial-eze* controls on the lavatories . . . special health safeguards on the drinking fountains . . . fool-proof controls on the showers . . . and, most important, *the most thorough sanitation* ever devised for the children in your care.

For anything you wish to know about Crane school plumbing—products or delivery dates—call your Crane Dealer, Crane Branch, or Wholesaler.



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TYPE "H"—Made, at present time, in 15 ft. units, up to 15 rows high. Units moved bodily without dismantling.

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GRANDSTAND

*For Every
Purpose*

- Representative of a wide line of WAYNE stands are the TYPE "H" Portable Grandstand and the Rolling Gymstand. Both have rugged steel construction and are built to the same high standards.

For relatively permanent installations indoors or out, the Type "H" Portable Grandstand offers the most seats for the least expense.

- Opened, the Wayne Rolling Grandstand is sturdy with maximum visibility and comfort for spectators —plus absolute safety. Closed, the stand folds against the wall to present a flat vertical surface, or the movable type may be rolled away to another position—saving many feet of usable floor space.

- Send us the measurements of your present or proposed gymnasium for our engineer's recommendation and estimate.

ROLLING GYMSTAND—One continuous operation by one person opens or closes the Rolling Gymstand.



"WAYNE STANDS



FOR SAFETY"

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Gentlemen: Please send us your new GENERAL CATALOG.

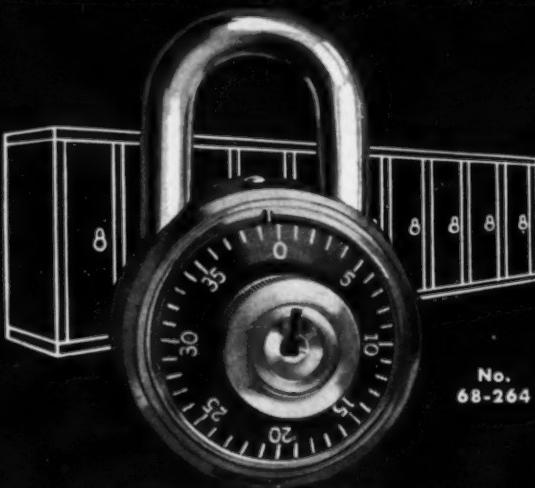
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COMBINATION LOCKS**

low cost protection

- Locker security . . . yours at low cost . . . with these fine combination locks by the National Lock Company. Case is of double steel construction. The No. 68-264 masterkeyed lock has a stainless steel outer case. Dial finished in black enamel with numerals and gradations in white enamel for easy visibility. Shackles are 5/16 inch steel.

* * *

- Write today for complete information on National Locks. Please give title and school affiliation. Free sample will be sent to you upon request.

**NO. 264 MASTERKEYED
SELF-LOCKING SHACKLE LOCK**

- With stainless steel case. Masterkeyed so that it may be opened by authorized custodian if necessary. Where locker supervision is important, this lock proves the ideal answer.

NO. 265

SELF-LOCKING SHACKLE LOCK

- Rugged. Easy to use. Extremely well suited for school lockers. Dial is locked against rotation when shackle is open. Combination is disturbed when shackle is closed. Requires dialing to three numbers. This lock is not masterkeyed.



NATIONAL LOCK COMPANY
ROCKFORD • ILLINOIS
LOCK DIVISION



PLAN FOR *Fresh Air Ventilation* with low-cost Fencraft Projected Windows

When rain or snow beats against the windows, must your classrooms be closed up, without benefit of fresh-air-ventilation? Not if you choose Fencraft Projected Windows. Here's why:

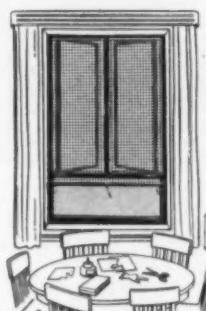
THE OPEN-OUT VENT FORMS A CANOPY over the opening, sheds rain and snow away from the opening.

THE OPEN-IN VENT DEFLECTS INCOMING AIR UPWARD, prevents drafts at desk level. And it sheds rain and snow to the outside.

Each vent operates easily with one hand . . . stays in selected open position . . . closes to a weather-tight fit.

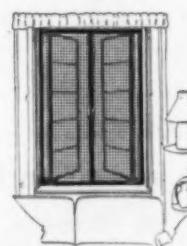
Fencraft windows are built for safety. The sill vent prevents leaning out windows. Both sides of the glass are washed from inside the room. Interchangeable screens are attached or removed from inside. And steel won't burn.

These attractive windows—Projected, Combination and Casement types—have been standardized to reduce first costs and to keep installation costs down. For information on types and sizes, mail the coupon.



FENCRAFT COMBINATION WINDOW

Generous fresh-air ventilation. Swing leaves deflect breezes into the room. In-titting sill vent protects against drafts. Both sides easily and safely washed from inside.



FENCRAFT CASEMENT WINDOW

Safe washing on outside, from inside. Easy to operate. Interchangeable inside screens, protected from outside dirt.

Fenestra

CASEMENT PROJECTED COMBINATION

FENCRAFT INTERMEDIATE STEEL WINDOWS

Detroit Steel Products Company,
Dept. AS-12
2256 East Grand Blvd.,
Detroit 11, Michigan

Please send me data on types and sizes of the new Fencraft family of Fenestra Windows:

Name _____

Company _____

Address _____



Sauces with appeal!

CREOLE SAUCE

Sexton Creole Sauce has an enchanting richness reminiscent of old New Orleans. All the captivating piquancy of Creole cookery is captured in its natural goodness. Widely served on fishentrees, omelettes, Spanishrice. For convenience, economy, guest pleasure, serve Sextons.

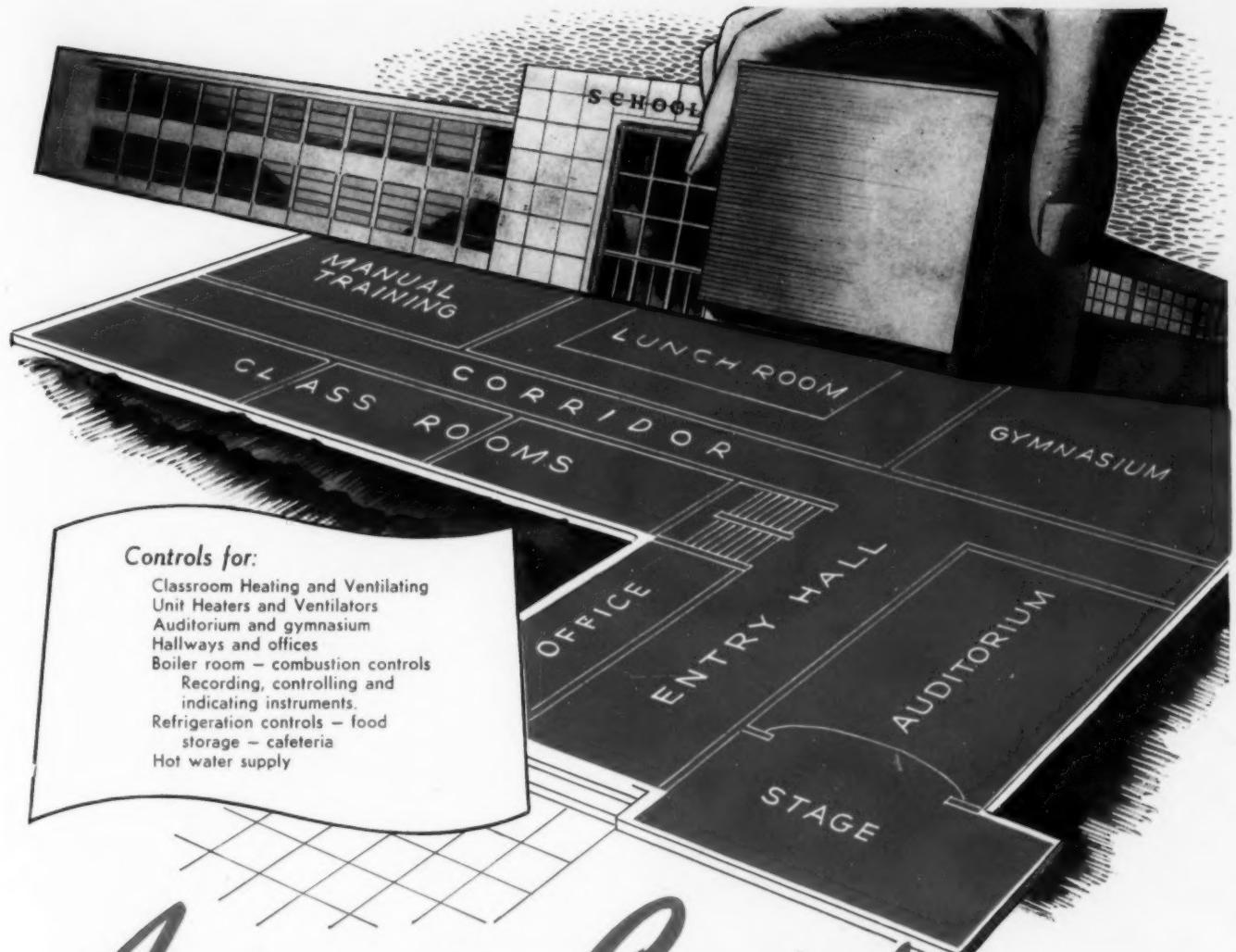
Sexton
Quality Foods

SPAGHETTI SAUCE

Edelweiss Spaghetti Sauce transforms placid though nutritive spaghetti into a real joy for any school child. The mild mellow flavor of this famous sauce makes it a universal favorite. Its rich red color is an added appeal to the youngsters.



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Automatic Controls

FOR EVERY SCHOOL PROBLEM

PICK your spots. At any point on the plan there is a Honeywell control to meet the individual problem presented. And in existing buildings, too, automatic control can be applied with equal facility to provide just the conditions desired.

Wherever Honeywell controls are used, it's assurance of plant equipment operating according to design—at its best. That's because Honeywell's background of engineering knowledge and experience, multiplied for more

than sixty years, represents the ability to recognize the problem, the requirements and the solution. The result, from your standpoint, means proper health and study conditions plus maximum operating efficiency, with heating economy.

Call on Honeywell for consultation about every kind of automatic control question. Simply phone or write the Honeywell branch in or near your city. Minneapolis-Honeywell, Minneapolis 8, Minnesota. In Canada: Toronto 12, Ontario.

MINNEAPOLIS
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CONTROL SYSTEMS



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"THIS, Mr. Superintendent and Gentlemen of the School Board, is a picture of The Nesbitt Classroom. The Nesbitt Syncretizer unit ventilator, which we use and know to be good, is matched up with Nesbitt steel shelving and storage cabinets. It makes perfect use of the space along the windows, and it provides ideal working conditions in the classroom. Not only the comfort and health of the pupils, but convenience is considered: 'a place for everything and everything in its place.' Just as a homemaker likes a modern streamlined kitchen, we teachers do our best work in up-to-date classrooms. So, if you want to make us all very happy, please install The Nesbitt Package in our new and remodeled schoolroom!"

THE NESBITT PACKAGE

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